

Syphilis


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CLINICAL MANUALS
FOR
PRACTITIONERS AND STUDENTS
OF MEDICINE.



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Fig. 1.

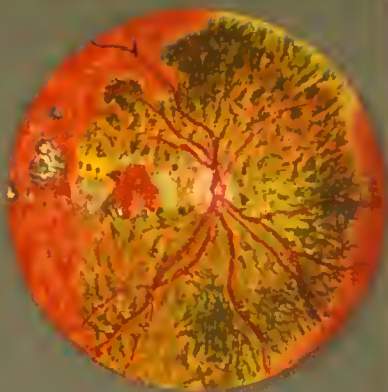


Fig. 2.

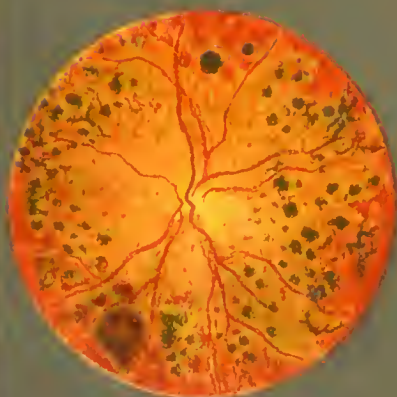


Fig. 3.



Fig. 4.

FRONTISPIECE.

SYPHILITIC CHOROIDITIS.

FRONTISPIECE.

SYPHILITIC CHOROIDITIS.

Fig. 1.—Choroiditis disseminata in connection with acquired syphilis. Both eyes were affected. A late stage.

Fig. 2.—Choroiditis in connection with acquired syphilis. The patches of very large size, involving almost the whole of the central part of the fundus, with the exception of the yellow spot itself. There were many other smaller patches. The disease was aggressive. The sketch was taken twenty years after the attack of syphilis from the eye of a woman (aged 50), whose eldest child was at the same time under care for syphilitic keratitis.

Fig. 3 represents the eye of a boy (aged 8) who was the subject of inherited syphilis. The conditions in part simulate in a coarse way those of retinitis pigmentosa. The patches of pigment are arranged in a zone; some of them are in streaks, but many others are round. The margins of the disc are partly concealed, and the disc itself is waxy. In this case the boy did not show the usual indications of inherited syphilis, but his elder sister, who was under care at the same time, exhibited them to perfection. She also had choroiditis.

Fig. 4.—Sketch showing recent syphilitic choroiditis. There are numerous isolated yellowish patches in the choroid (gummata). The attack occurred several years after syphilis, and the patient had suffered from retinitis during the secondary stage. When seen three years later, the gummata had disappeared, and pigment patches remained in their place.

SYPHILIS.

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To

ALFRED FOURNIER,

AS A SMALL EXPRESSION OF FRIENDSHIP

AND HIGH ESTEEM

THIS WORK IS DEDICATED

P R E F A C E.

THE literature of Syphilis is encumbered with ill-founded opinions and untrustworthy facts. Although in some respects the study of this specific disease may be considered more easy, and as offering more definite data to work upon, than most other maladies, yet it has also many special sources of fallacy. Our patients often have reasons for not telling us the exact truth, and, still more often, they are not themselves cognisant of it. The disease is a slow one, and the case histories which we have to investigate frequently extend over many years. Very often we are precluded, by circumstances, from asking the questions which we should like to put. None of the symptoms of the disease are pathognomonic, and with the best desire in the world to be candid, both patients and their advisers may give us misleading evidence. Such being the sources of error, it becomes wise to distrust all isolated facts, however definite they may appear to be, and to give our confidence almost solely to propositions which are in accordance with general experience. The subject is one concerning which there is as yet, on many important points, much uncertainty in our knowledge.

In the following pages I have aimed less at systematic completeness, than at clinical exposition. To the latter subject I have devoted my best efforts, and my hope is that those who may honour this work by their attentive perusal, will obtain from its pages clear impressions of the present state of our knowledge on most of the topics which it concerns.

Nor will they, I hope, miss suggestions as to the kind of research which is yet needed in many directions. It has been my endeavour to make the numerous case narratives tell their own story, and to allow their various weak points, as items of evidence, to be apparent. I trust that it will be found that no attempt has been made to exaggerate the precision of our knowledge, and that, as far as possible, all dogmatic assertions have been avoided. The attempt has been to point the way to general principles, which, once accepted, may obviate the necessity for much of the detail which we find in systematic treatises. That the diagnosis of syphilis is often beset with difficulty, and that its recognition in the various forms of disease which it produces, is to be attained rather by careful appreciation of all the facts of the case, than by placing confidence in any one symptom, has been repeatedly enforced.

The creed which will be found to interfuse not only this work, but almost all that I have ever written on syphilis, is that the disease depends upon a living and specific microbe, and that it is contagious or transmittable only so long as that microbe retains its vitality. It is, I believe, of the utmost importance to keep this doctrine clearly in mind, for it simplifies our reasoning, and clears our view at every step. Considering the successes which the study of Bacteriology has attained of late years, it is certainly surprising that no one has as yet been able to demonstrate the special microbe of syphilis. That this discovery is in reserve for some future investigator, I have the utmost confidence in believing.

I have to offer some apology to the innumerable writers on the subject of syphilis, for the comparatively small number of references to their works which will be found in this book. Its limited size has entirely precluded anything like controversial discussion,

and at the same time almost all attempts at the history of the development of opinion. It is, however, a matter of mere justice that I should here acknowledge my indebtedness to the admirable and systematic works of Messrs. Hill and Cooper, Professor Baumler, and Drs. Bumstead and Taylor. My great obligations to Professor Alfred Fournier I have endeavoured to imply in my dedication. No one is better aware than myself that the advance in our knowledge as regards syphilis during recent years, has been the result of the labour of many observers, and to no one would the office of grateful recognition of all have been more pleasing had the conditions of my work permitted it.

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SYPHILIS.

Part I.

GENERAL STATEMENTS.

CHAPTER I.

THE PRIMARY SYMPTOMS, ETC.

THE first step, in order that we should understand syphilis, is to recognise that it is by no means necessarily a venereal disease. Its various phenomena result from the introduction into the patient's system of a specific poison ; and this poison, in all probability, consists of particulate (or organic) elements. It can be conveyed from one person to another only by direct contact of surfaces. The thinner and more delicate the tissues exposed to its contagion, the more easy is the implantation of the virus. The existence of cracks, abrasions, or ulcers, although probably by no means essential, much favours the success of the contagion. It does not matter in the least upon what part of the body the contagion is effected ; for syphilis is always one and the same disease, and is modified in its course only by the inherent peculiarities of the person acquiring it, and the antidotal drugs which are used. It is obvious that the venereal act affords peculiar facilities for the transference of a virus of this kind, needing direct implantation upon delicate tissues. Hence the fact that syphilis in the vast majority of cases is communicated

in this way, and hence its popular synonym. We meet, however, in practice, with numerous cases in which the contagion takes place upon parts distant from the genitals: on the finger, as so often seen in the case of medical men and midwives; on the lips, from kissing or from the use of dirty pipes or drinking-vessels; in the sores produced by vaccination, and, in fact, upon any part of the surface which has been by accident inoculated. The study of some of these cases is even of greater value than of those in which the disease is received in the usual way, since the dates can often be more accurately fixed, and it also sometimes occurs (as in the case of syphilis by vaccination) that a number of persons receive the disease on the same day and from the same source. When these accidents happen, we have exceptionally good opportunities for observing the natural development of the malady.

The study of such cases leads us to a very strong conviction that the early stages of the disease known as Syphilis are very uniform in their duration; quite as much so as those of the exanthemata. We may conveniently specify the following stages: (1) the period which intervenes between the date of contagion and the first evidence of local change; (2) that which occurs between the latter date and the full development of local peculiarities; and (3) (to go back again to the date of contagion), that which precedes the occurrence of constitutional symptoms. Syphilis, like the exanthems to which I have just alluded, is followed in due course, after the poison has had time to breed in the blood, by constitutional symptoms. Those symptoms are: febrile disturbance, sometimes acute, sometimes almost absent, an eruption on the skin and mucous surfaces, and transitory congestions or inflammations of the most various organs and tissues. It is customary to speak of the local phenomena, resulting directly from the contagion, as *primary symptoms*, and of those

which follow, when the whole blood is poisoned, as *secondary*, or constitutional; whilst the terms *tertiary*, and remote, are reserved for a different class of phenomena, which may appear at very various periods after the primary and secondary have long cleared away. Although, as has just been asserted, the stages of syphilis are probably when uninfluenced by antidotal treatment very uniform, yet it must be clearly recognised that its severity varies very much in different individuals. This remark applies to all its stages and to all its varied phenomena. Without any reference to the health of the individual, to his age, to the part inoculated, or to the source of the virus, we may witness both in the primary and the secondary symptoms the widest possible differences as regards severity. The secondary stage may be almost fatal in one case and scarcely to be recognised in another; the tertiary phenomena never happen at all in a vast number of persons who have suffered very severely in the secondary period, whilst they may affect with great pertinacity, in exceptional instances, those who have suffered very little in the early stages. Differences in treatment no doubt account, to some extent, for these apparent discrepancies, but certainly not for the whole. There remains much which can be explained only by the idiosyncrasy of the individual. I believe that a similar remark is equally true of the specific fevers known as the exantheams.

The study of syphilis has been rendered much more difficult than would otherwise have been the case, by the fact that its contagion is rarely effected by a pure fluid. In a majority of cases, not only is the particulate virus of syphilis implanted, but with it the contagious products of peculiar forms of inflammatory action. In this way the local or primary symptoms are often complicated, and we witness on the same spot the results of the implantation of inflammatory material

and of the true virus. Further, it may happen, and it often does, that either a contagion from the inflammatory material alone takes place, or that the effects of this entirely overpower and destroy the specific virus which was mixed with it. It is to the study of these two classes of local phenomena that we will now proceed.

On infective or hard chancres.—If the virus of syphilis in a pure form be inoculated, it rarely produces any irritation at first. A period of from three to five weeks will elapse before anything is observed. At the end of that time a little red spot will be noticed, which itches more or less, and which, extending from day to day, soon becomes a papule, and by the end of a week or ten days is, probably, a little indurated disc or button. The induration is usually very marked, and its margins definite. There is not much surrounding inflammation, and the surface of the ulcer usually secretes but little. In some cases, indeed, there may be no ulceration whatever, and not the slightest secretion. At the end of five weeks from the date of contagion the induration will, probably, be marked. It will continue for a longer or shorter period (usually in relation to treatment pursued), but it never, even when wholly let alone, persists indefinitely, and frequently it vanishes after a very short duration. Occasionally it may last for months. The number of these indurated spots, or chancres, will depend upon the number of different places which were inoculated at the same time, just as is the case with vaccination vesicles. It is not very often that more than one is seen, and if there be two, three, or more, they are always at the same stage of progress at the same time. No new ones are ever produced subsequent to the full development of the first.* If, for the sake of experiment,

* It is possible that certain rare exceptions to this statement may occur. I shall advert to them subsequently in speaking of satellite chancres.

it were attempted by direct inoculation to produce others, the attempt would fail ; just as we should fail to re-vaccinate an infant, on the eighth day, from his own spots. Simultaneously with the development of local induration there is, usually, an enlargement and hardening of the nearest lymphatic glands. If the sore be on the finger, the glands in the armpit will enlarge ; if on the lip, those under the jaw ; if on the genitals, those in the groin. The character of the enlargement of the glands will be similar to that of the primary sore ; that is, there will be great hardening and very little tendency to diffuse inflammation. The glands will remain separate from one another, and more or less movable. The degree of induration will often be such as to justify the term "bullet bubo."

On soft or non-infecting sores.—The conditions which result from the implantation of inflammatory, or from mixed, products are wholly different. It would appear that some of the inflammations resulting from syphilis, but not attended by the actual presence of the virus, may produce a peculiarly irritating and very contagious secretion. This secretion, if inoculated, promptly produces inflammation. Sores form within a day or two of its contact, which are attended by ulceration, and by the secretion of pus which is capable in its turn of inoculating other parts. Hence these sores may be multiple in the beginning, or may become multiple afterwards ; and if the experiment of artificial inoculation on some other part of the patient's person be tried, it may easily be proved that he is in no sense protected, since sores of a precisely similar character will be produced. Inasmuch as sores of this kind never show definite induration, they are often spoken of as "soft," but it must be clearly remembered that it is quite possible that one or more of them may, at the end of the four weeks' incubation period, take on

induration. It must also be most clearly understood that although the infecting sore in its typical condition is "hard," it does not by any means always assume that character. The popular division of sores into "soft" and "hard," and forgetfulness of the cautions I have just given, are productive of very numerous mistakes.

The characters of these non-indurated, pus-secreting sores are very various ; but their most usual features are those of an abruptly margined ulcer, with cut or punched-out edges, with a grey, unhealthy surface, with much surrounding inflammation. It is a remarkable fact that the non-indurated sore is almost never seen excepting on the genitals. We must explain this probably by the suggestion that the vitality of the pus elements is much lower than that of the true virus of syphilis. Thus, should they come in contact with the lip or the finger, or even with an abrasion or a wound, they are probably far more easily washed off and got rid of than is the true virus. The mucous folds on the genital organs however, afford them a protection, and thus favour the success of their contagion. The non-indurated sore, like the hard one, is very prone to cause enlargement of lymphatic glands, and, as in the former case, this enlargement is of the same type as that of the sore which produced it. It is attended by excess of inflammation. The affected glands swell greatly, and the intervening tissue being involved, they become glued together in one mass. Suppuration both within and around the glands, instead of being the exception, is the rule.

It is quite possible for a patient to suffer from non-indurated sores and suppurating bubo without having, subsequently, any constitutional phenomena. Many such cases do occur. I feel sure, however, that they are far less common than is generally believed, and that in a majority of cases, sores which are at first "soft," and remain throughout their course so diagnosed, prove to be infecting. The surgeon must be most cautiously

on his guard in giving opinions on this point ; for if the patient has never had syphilis before, whatever are the characters of any primary sore which he may exhibit, the chances are two to one that the sequel will prove that it contained the germs of true syphilis. The terms infecting and non-infecting, or true chancre and false chancre, might perhaps conveniently displace the adjectives soft and hard. Whatever terms we use, however, we must clearly understand that the soft very often precedes the hard, that the infecting is not always hard, or, to state it in other words, that the soft may often prove to be infecting. So also with the bubo ; an infecting sore may often cause suppuration of the glands, and a non-infecting sore may be attended by a quite moderate degree of enlargement of glands, which never show any tendency to suppurate. Such being the facts, it is absurd to attempt the formation of sharply-defined rules in the diagnosis of chancre. The general precepts in use are, however, safe enough if we are content to apply them lightly, and careful to remember that they have many exceptions.

On the relation of herpes to primary syphilitic sores.—It is desirable at this point to speak as to the relation to true syphilis of a very peculiar disease known as *herpes*. Herpetic vesicles may occur on the genitals of either sex quite independently of any venereal cause, and if they have occurred once they are very prone to occur again. They are, I think, seldom or never seen before puberty, and, in those liable to them, they often appear to follow directly on nocturnal emissions or sexual intercourse.

Herpetic vesicles are recognised by their coming out in a group, consisting of at least three or four, by their developing simultaneously and suddenly, and if time be permitted, by their spontaneous disappearance. Their relationship to syphilis is very peculiar, and often very puzzling. It would appear that they

are liable to follow on both kinds of local sore, the non-infecting as well as the infecting one. And although I have admitted that those who have never suffered from syphilis are liable to recurrent herpes, yet it is certain that those who have so suffered are infinitely more prone to it. In syphilitic subjects, further, herpes is often much more severe than in others. Its sores may last longer and become much larger than they would in others, or some of the vesicles may heal and others may persist, and thus it may become by no means easy to distinguish an herpetic sore from a non-indurated chancre. Since it very frequently follows intercourse, the patient will often give a misleading history. There is yet another fallacy which occasionally occurs, for, in the careless, the existence of partly healed herpes may facilitate the implantation of the syphilitic virus, and thus a true chancre, or a whole group of chancres, may follow what was in the first instance herpes.

On the treatment of chancres.—As regards indurated primary sores, if the hardness be such as to justify a positive diagnosis, and if, in further corroboration, there be also the bullet bubo, there can be no question as to the treatment. Mercury should at once be given, and applied locally, and under its influence there will ensue in the most definite manner softening of the indurated area and healing of the ulcer. If the mercury be stopped, the induration will recur, and if it be again given, the induration will again melt away. The excision of an indurated sore, or its destruction by an escharotic, can seldom do any harm, but will rarely be productive of good. The virus has already passed into the lymphatic system, if not into the blood, and the occurrence of induration, for the most part, denotes a stage of development too far advanced for any hope of cure by local treatment. The treatment of non-indurated sores will vary according

to the stage at which they are seen. If a patient who has never suffered from syphilis before, and who can give his dates correctly, comes under observation, at any period within a fortnight of the contagion, with a single sore, it will certainly be wise to destroy it utterly. For this purpose fuming nitric acid may be used, or, still better, the actual cautery ; and if the part affected admit of it, free excision by the cautery had better be made. The shorter the period, obviously, the greater will be the chance of success. However short the period, success is not certain, as is proved by well-known facts. The facts to which I allude, however, are not of such a nature as to relieve the surgeon of the duty of giving to those patients who seek his aid early in the case, such chance of escape as the freest possible local treatment affords. If instead of a single one there be many sores, and much surrounding inflammation, there is then no encouragement to commence an abortive local treatment. In these cases, and in all which come under care late, the local treatment will consist in very free washing of the sores and the application of iodoform. This latter drug has superseded all others for the cure of non-indurated or suppurating sores. It should be dusted into the sore after liberal irrigation, and should be applied also as an ointment, one drachm of iodoform to one ounce of vaseline. Probably in nine cases out of ten this application will cause the non-indurated sore to take on healthy action and to heal. There are cases, however, which unexpectedly resist it. For such, mercurial applications are next to be tried ; and, should they fail, cauterisations with the acid nitrate of mercury may become needful.

Before the introduction of iodoform, a host of remedies were in much repute, but were all of them frequently disappointing. Amongst these may be mentioned the sulphate and chloride of zinc, the

sulphate of copper, borax, and various preparations of opium. There are a few cases in which sores which are not in the least indurated will yield to nothing but the internal administration of mercury. These are, however, very exceptional; and it may be asserted that for the most part the introduction of iodoform has rendered the treatment of non-indurated sores a very easy matter. The same remark applies to the suppurating stage of true chancres.

It is necessary here to say a few words about a peculiar type of the inflammatory process, which is prone to attack both forms of sore. I allude to phagedæna.

Phagedæna.—When an ulcer steadily extends in depth and in area, and when its edge presents little irregularities, as if it had been eaten away by a mouse, we say that it is phagedænic. Very often the edge presents, on careful examination, minute points of slough not bigger than pins' heads; but in more exceptional cases there will be sloughing of large and conspicuous portions, and the spreading will be very rapid. To this latter condition the term sloughing phagedæna is given.

Sores which are phagedænic are nearly always painful, and the pain is proportional to the extent and rapidity of the process; they are also very liable to bleed, for it would appear that the arteries adjacent to them often fail to get plugged before they are opened by it. If the ulceration extends deeply, and involves vessels of any considerable size, the hæmorrhage may be profuse.

A certain degree of power to cause the phagedænic type of inflammation appears to attach itself to several specific animal poisons. Thus the affections called *cancrum oris* and *noma*, which are forms of sloughing phagedæna, usually occur in fairly healthy children, as the sequelæ of measles or scarlet fever. The

syphilitic virus, however, stands pre-ëminent in power in this direction, and probably nineteen out of twenty of all forms of phagedænic action which we encounter in practice are due either directly or indirectly to its influence.

The disease known as Hospital Phagedæna, which may spread through a hospital, attacking all operation wounds and other wounds, is, I believe, almost always set going by the admission of a case of syphilitic phagedæna into the wards. The secretions of a phagedænic wound are unquestionably contagious, and they are so not only as regards other individuals, but also in reference to the patient himself. It is in large measure by the contagion of its own secretions that a phagedænic wound continues to spread. Remove those secretions and clean the wound, and the disease will be, in most instances, arrested. In a few cases, however, the constitutional tendency under which the disease was initiated is sufficiently strong to begin it again and again, in spite of the most efficient treatment. In these latter cases the use of internal specifics becomes equally important with that of local remedies.

Syphilitic inflammations of all kinds and at all stages, whether primary, secondary, or tertiary, are liable to take on phagedænic action. Its most frequent examples, however, occur in connection with primary chancres. Although I have admitted that it may attack the non-infecting as well as the infecting, I could not quote from my own experience any example of a well-characterised primary phagedænic sore which did not prove to be infecting. I am speaking of chancres occurring in those who have not previously suffered from syphilis, for exceptions occur in those who have done so.

Phagedænic action in primary sores may vary much in different cases, being sometimes slight and

easily arrested, at others persistent and extensively destructive. In some cases it may destroy the whole of the penis ; and in a few cases, chiefly in young prostitutes, it may end fatally. It appears to be more apt to occur in sores which are concealed under a long prepuce, by which the secretions are retained. But it may attack sores in any position. Whenever a concealed sore becomes painful or liable to bleed, the foreskin should be slit up and free access obtained.

Several different measures are of the utmost value in the treatment of phagedæna ; and whilst invariably aggressive if left to itself, it is as almost invariably cured by one or another, or by several combined. In the first place, we have local measures which have for their object the removal of secretion or its destruction. Amongst these the application of nitric acid, and the use of the permanent bath, are chief. In most cases one or two free applications of nitric acid will stop phagedæna. It is, however, a painful measure, and in most cases equally good results may be obtained by keeping the part immersed in warm water. In a bad case the patient should remain day and night in a sitz-bath ; but in less severe ones he may get into his bed for five or six hours at night. When he leaves the bath the sore should be dressed with iodoform. Since the occurrence of phagedæna is most frequently a concomitant of the infecting sore, mercury ought always to be given unless it definitely disagrees. With the mercury should be combined full doses of iron and opium. If it be unquestionable that mercury does disagree, iodide of potassium should be substituted.

Finally, there are certain cases in which a phagedænic sore, although much benefited by the measures enumerated, may yet decline to heal under any or all of them. In these cases healthy processes will almost

always result if the patient be sent to the sea-side. When once phagedænic action is completely stopped it scarcely ever recurs, a fact which speaks strongly in support of the belief that it is to a large extent a local process only.

Having thus far considered the peculiarities of primary sores, we may here dismiss entirely the non-infecting ones, since they are not productive of any constitutional phenomena, and though allied to it, are not in any true sense syphilis. We may now proceed to the investigation of the very remarkable train of symptoms which follow the infecting chancre.

CHAPTER II.

THE FIRST STAGE OF CONSTITUTIONAL INFECTION (SECONDARY SYMPTOMS).

THE chancre and the bubo make up together the primary, or local, group of syphilitic symptoms. We shall be very near the mark if we say that definite induration in the chancre is rarely present till five weeks have elapsed from the date of contagion, and that secondary phenomena seldom follow till from two to four weeks later still. There is thus a period of from two to four weeks after it is possible to recognise the infecting sore for a certainty, before the time at which constitutional symptoms will show themselves. If this period has been well employed, if, in other words, mercury has been freely and adequately given, I believe it is quite the exception for any secondary symptoms to occur at all. At any rate, if they do, they are but slightly and very feebly marked. The earlier the mercury is resorted to the

greater the probability that they will be wholly prevented. Even when not permanently prevented they will usually be much delayed.

I am sorry to be obliged to admit that in a certain number of cases, often apparently the most successful, the sequel will prove that delay only has been accomplished. After even a six months' treatment with mercury, and absolute prevention during the whole of that time, an outbreak may occur when it is suspended. It is this remarkable power of mercury as an antidote to syphilis which has led to such different opinions as to the laws of its evolution. If mercury were never given we should soon see that syphilis is much more regular in its course and stages than is generally supposed. The order of events in cases not interfered with would be probably somewhat as follows: At the end of about six weeks from the date of contagion, the patient would begin to experience slight malaise and feverishness, and his temperature would rise a little every evening. During the next fortnight, if the skin of his chest and abdomen were carefully inspected, it would be found to be mottled by evanescent patchy congestion, not unlike measles, but more dusky and not so conspicuous. To this term syphilitic roseola is appropriate. It is often very evanescent, present at one part of the day and gone at another, or may last only a few days and then disappear. Simultaneously with it, a little later or a little sooner, symmetrical superficial ulcerations in the tonsils occur, and these, too, may be very transitory, and cause so little annoyance that the patient may be scarcely aware that his throat is sore. As the roseola fades, or it may be before it fades, other types of eruption will follow; and a rash composed of little smooth-topped or slightly scaly papules is the most common. The eruption may, however, vary within very wide limits. It may be a lichen, or it may be

pustular ; or it may take the impetigo or acne type ; or it may be vesicular or bullous and thus assume the rupia type ; or it may be corymbiform (the lichen ruber type) ; or, however extraordinary the assertion may seem, it may be indistinguishable from variola.

The contagion period.—We know respecting syphilis that during its early stages the blood and all products of inflammation may become the vehicles of the contagion. How long this condition exists we do not know. That the blood may still be contagious after all external phenomena have vanished we know from the facts of vaccination syphilis, and from many instances of accidental inoculation. A vast amount of negative evidence favours the belief that the normal secretions, the saliva, the milk, the sweat, the semen, are not usually vehicles of contagion. If they were so, syphilis would be far more common than it is. The rarity of the lip chancre is an almost conclusive fact against the contagion of the saliva, when we reflect how frequently the subjects of syphilis fail to take any precautions as to kissing. So also, as regards the semen, is the fact that syphilitic husbands do not usually communicate the disease unless pregnancy ensues. Yet it is unquestionable that the virus exists in the semen in a manner which permits of spermatic infection of the embryo. It is possible, however, that this may be a very different thing from the infection of a wound.

A very large amount of negative evidence supports the belief that the virus ceases to exist, in a form efficient for contagion, long before the subject of the disease is free from the risk of relapse. Almost all the examples of accidental contagion occur within short periods from the beginning. It is seldom that more than two years can be proved under such circumstances. The primary and all secondary lesions are certainly contagious, and during their persistence the

blood is virulent, but after they have ceased, whether from treatment or without it, there is reason to believe that the virus does not long remain potent for contagion. No instances of contagion from a tertiary lesion, or from one produced more than five years after the primary disease are, as far as my knowledge extends, on record. Perhaps I might shorten the period to three years. Yet long after such periods the patient continues to be himself liable to various forms of local inflammation consequent on his taint.

Second attacks.—The older writers inferred that a man might have syphilis over and over again. Five-and-twenty years ago it was taught, almost universally, that one attack secured immunity from others. We are now again coming back to the old belief. At any rate we know for certain, that although contrary to rule, second attacks are not very infrequent. I have myself had not a few opportunities for observing the course of second attacks in patients whom I had attended for the first. In a few I have witnessed the occurrence, within from six to ten years, of a second well-characterised chancre followed by a well-characterised eruption. The doctrine that immunity is conferred is, however, to some extent well founded. Second attacks are exceptional, and when they do occur, the disease is almost always modified. Second chancres do not run the usual course. Their induration is often developed rapidly, and very quickly passes away, to be followed by nothing definite. For the most part second contagions result only in non-indurated or abortive sores. Yet in spite of this being the usual course of events, it is, I repeat, quite possible for a man to have complete syphilis twice. Perhaps it is as infrequent as in the case of variola, and to be explained, as in the latter instance, by the idiosyncrasy of the patient. It curiously happened, in the first instance in which I

observed a second attack of syphilis, that the patient had experienced two attacks of variola also.

Syphilis as a cause of overgrowth. — I shall allude farther on to the fact that one of the manifestations of secondary syphilis is the production of papillary warts. The fact that we encounter not only the most various modifications of inflammatory processes, but also conditions which are in the main produced by structural overgrowth, is so remarkable that I must refer to it in some detail. The warts which we see on the middle of the dorsum of the tongue are the most simple and definite example of this simple enlargement. They are often unattended by inflammatory infiltration of adjacent parts, and consist simply of hypertrophied papillæ. They wither when mercury is given. Now and then similar warts, directly due to syphilis, are seen on the genitals, and sometimes (but very rarely) the whole skin eruption assumes a papillary type. The condyloma* is, however, much more common than the ordinary wart. It is indeed a variety of wart, and between it and the typical verruca mollis we observe all gradations. In the condyloma there is great hypertrophy of papillæ, but these are concealed by the extensive cell infiltration into the intervening layers. The great thickening of the intima, which often occurs as the first stage of syphilitic arteritis, is also in many instances a condition of hypertrophy rather than of inflammation. The same remark applies to some of the cases of hypertrophic sclerosis which we meet with in syphilis, in which there is much diffuse fibrous overgrowth. This fibrous overgrowth may vary much in the amount of its cell infiltration.

* The term "mucous patch," often used as synonymous with condyloma, should be superseded by "mucous wart" or "papilloma." Many, indeed by far the greater number of, "mucous patches" are not attended by any papillary growth.

Thus it may be said that the syphilitic virus often causes sclerosis or sclerotic hypertrophy in the first instance, and inflammation more or less marked in the second. Sometimes no inflammation occurs, and the chancre may run its course without pain or irritation, without ulceration and without discharge. Such are probably the facts as regards the chancre in some of the cases in which intelligent and truthful patients assure us that they have never had any local sore, although now affected by unquestionable syphilis.

The indurated chancre does not present any features peculiar to itself when examined by the microscope. It is simply an example of cell infiltration without giving way of the cellular tissue fibres amongst which the cells are effused. Hence, perhaps, the explanation of its hardness. Inflammatory action is almost absent, and the process resembles that of a new growth. The hardest chancres are always those which are least inflamed.

In the false chancre, on the contrary, the pus elements which effect the contagion produce inflammation from the beginning. Even if the specific virus be present also, it is very possible under such conditions that it may be unable to effect any noticeable degree of sclerosis, and thus the sore may rank as soft, or suppurating, although it may prove infecting.

General phenomena of the constitutional stage.—At the same time that the skin is affected, the eye, the periosteum of the bones, the bones themselves, the joints, the nervous system, indeed, all the tissues of the body, are liable to suffer. Whatever part is attacked, however, the inflammation, although persistent for a certain time, will usually prove transitory in character. Very often the duration of the phenomena at this stage is exceedingly brief. Just as the patient may have a roseola which lasts only a few

weeks, or even only a few days, so it is with periosteal pains, with affections of the eye, and with those of the nervous system. What happens may be a merely temporary congestion, and by no means a definite inflammation. In this we note a strongly marked difference between all the occurrences in the secondary stage of syphilis and those which are tertiary. The latter, unless cured by treatment, almost invariably persist, and tend to spread locally. The former, although often for a time very severe, as invariably show a tendency to subside spontaneously. Other important distinctions between secondary and tertiary syphilis must be insisted upon. The phenomena of the secondary stage are caused by poisoning of the blood, and of the tissues generally through the blood; they are, therefore, almost always symmetrical, and are developed, with accurate sameness of appearance, on the two halves of the body. In the tertiary stage it is highly probable that the virus has ceased to exist in the blood, and in an active form even in the tissues themselves. Thus in this stage the phenomena are due to peculiarities which have been stamped upon the tissues by what occurred during the more or less remote period of blood poisoning. Local influences have much to do with the bringing out of these inflammations, but when once produced they are always self-infective, and tend not only to persist, but to advance in adjacent tissues by what is called "contagion of continuity." As an example of this, let me adduce the well-known horse-shoe sore, a form of syphilitic lupoid affection of the skin, always tertiary, and always tending, unless stopped by treatment, to spread at its edge. To this quality of edge-spreading the term "serpiginous" is applicable, and the serpiginous tendency is one of the most important features, let me repeat, of difference between the tertiary phenomena of syphilis and those which are secondary. One which

is, perhaps, still more important is, that the tertiary symptoms are as a rule not developed with symmetry. They depend far more upon local causes than do the secondary. Thus there is no reason why they should be symmetrical ; and, in fact, they are only exceptionally so. Even when an accidental symmetry is observed, we never witness with it the general distribution, which is another marked feature of the secondary symptoms. As a rule, we may note also that the inflammations which occur in the secondary stage do not spread at their edges, are not serpiginous, a feature in which they resemble those of the other exanthemata. The only exception to this occurs in the case of phagedænic ulcerations, and in these, as I have already endeavoured to explain, the phagedæna is not in a strict sense part of the syphilis, but is due rather to certain peculiar forms of inflammatory secretion, which have been produced by it. Thus, if phagedænic action should occur in the secondary stage, it never shows any tendency to symmetry of arrangement.

I must return now to the task of a more detailed description of the symptoms which we meet with in the secondary period. We will take first the **skin**.

Eruptions on the skin (in the secondary stage).—These eruptions present so many features of difference that it would be tedious to attempt their separate description. I will make a few general remarks respecting them, and then content myself by describing some of their more peculiar types. It is a most interesting and remarkable feature respecting the skin diseases of syphilis that they do not, as do the other exanthemata, keep to one form. There is, in fact, no single skin disease of constitutional origin which may not be imitated very closely by an eruption which is due to syphilis. Certain general features of distinction may, however, be noted. First, the

imitation is rarely absolutely correct. However close at first sight, the careful observer will almost always note some distinctions, and thus will usually know what prefix to apply. Next, there is very frequently a mixing of the types of two or more in one. Thus, as is well known, syphilitic eruptions are very commonly polymorphous. We see mixed in the same case, and often in close juxtaposition, papules of psoriasis and of lichen, or the rash may be in part lichenoid and in part pustular. There is a popular belief that the eruptions of secondary syphilis are always of a peculiar colour; a coppery tint, or the colour of the lean of ham, is supposed to constantly characterise them. No doubt this peculiar feature is very often observed, but it is far from invariable, and it is often exceedingly well marked in eruptions which have no relation to syphilis. Those who trust to it, therefore, will be in constant danger of making mistakes. In judging of the colour of syphilitic eruptions allowance must be made for the temperament of the individual, and for the part of the body on which the eruption shows itself. So far as the tint is produced by pigmentation, we may say that the darker the complexion of the patient the more likely will his eruption be to show a deep copper tint. On the lower extremities, where the venous circulation is at a disadvantage, patches of syphilitic eruption will always be much more dusky, owing to venous congestion, than on other parts. Next to colour, symmetry, and polymorphism, we have to mention the position on which the spots appear, as aiding us in the diagnosis of secondary syphilitic rashes. The earliest forms of eruption, roseola, etc., unquestionably occur on the front of the abdomen, and throughout the whole course of this stage the front of the trunk is very rarely exempt. Very probably the wearing of clothes, especially of woollen materials, with the warmth of the surface thus preserved, has much

to do with this peculiarity of location. We seldom see the early secondary rashes on the face or hands, and if they do occur here it is only in cases of exceptional severity. Next in importance to the abdomen and front of the chest is the front surface of the arms; indeed, I doubt if any region of the body is more constantly affected by secondary syphilis than these parts. The back and sides of the neck are very frequently attacked. Although we may without hesitation draw a strong line between common psoriasis and syphilitic psoriasis, by saying that the latter usually affects the fronts of the upper extremities, and the backs of the lower ones, while it is the reverse in the non-syphilitic form, yet the rule is liable to many exceptions. Whenever we find psoriasis patches definitely located on the tips of the elbows and fronts of the knee, we may be confident that it is non-specific, but we shall meet with constant exceptions to all other rules as to diagnosis by location.

Next in frequency to the roseolous or blotchy eruption, so common in the very earliest stage of secondary symptoms, we must place a papular rash, to which the name psoriasis is usually given. It differs from non-syphilitic psoriasis not only, as just observed, in the localities affected, but also in its general character. It seldom, like common psoriasis, affects large areas, but is usually seen in small spots (from a pea to a sixpence), and it is never conspicuously scaly. The white silvery scale crust usually present in the non-syphilitic form is seldom seen in the specific one. Not unfrequently the papules, upon which the scales are scantily placed, show so much thickening that the term tubercle might become appropriate. From these features, and from the fact that the various spots often differ a good deal from one another in the same individual, it is not often difficult to make the diagnosis, even without help from the history of the case.

Amongst the less common of the syphilitic rashes we have the following.

In the eruption known as lichen we meet with little red or dusky pimples scattered over the whole surface. They are often very thickly placed, but show little or no tendency to arrangement in groups, and seldom become confluent, or form patches. There is, however, a form of syphilitic lichen in which the spots are arranged in long, corymbose groups, or in streaks, exactly resembling those seen in lichen ruber, and sometimes these become flat-topped and polished as in lichen planus. The exact imitation of these peculiar forms of skin eruption by syphilitic rashes is very remarkable, and the diagnosis is often exceedingly difficult. The mistake most usual is that of taking the non-syphilitic eruption for a specific one, rejecting the patient's denial that he has ever run the risk of acquiring the latter. Lichen ruber and lichen planus are often dusky or copper-tinted, and present all the features which, to those of limited experience, suggest a confident diagnosis of syphilis.

Although a syphilitic eruption looking closely like small-pox is very rare, yet the knowledge of its possible occurrence is of extreme importance. The imitation, when it does occur, is very perfect. The papules are elevated, shotty to the finger, have depressed centres, affect the same regions as variola, and resemble it so absolutely that nothing but the history of the case can help the surgeon to a correct opinion. In proof of this statement I may say that it is not at all unknown for patients presenting this type of syphilitic eruption to be sent to the small-pox hospitals, and there to obtain admission and prolonged treatment. In private practice, also, I have known more than one case of a young man being carefully isolated for weeks in an upper chamber for a supposed variola, which persisted for months, and was finally

acknowledged to be syphilis. This simulation of the variolous eruption by syphilis is the most marked example of "syphilitic imitation" which I can adduce, but it is only one of many. By far the easiest clue to the recognition of the syphilitic skin diseases is, I may repeat, the acceptance of this general law : *Syphilis may imitate all known forms of skin disease, but it can produce no originals.* All the known names for skin diseases (excluding those of merely local origin) may in turn receive the adjective *syphilitic* before them. When they do so, that adjective becomes, of course, all important, and wholly swamps the designation to which it is appended. Not only variola, of the exanthemata, but varicella, rubeola, and scarlatina may be thus imitated. The rash caused by copaiba is often exactly like a syphilide, or, what amounts to the same thing, syphilitic rashes are like it. Forms of inflammation, exactly like those called lupus, are very common as the results of syphilis, and it is the same with alopecia, leucoderma, true leprosy, and many others. We see here the importance of a correct appreciation of the patient's history. When any one of the evanescent eruptions is simulated by syphilis, the mere lapse of time clears up the diagnosis, though, unfortunately, often not early enough to save the surgeon's reputation. The supposed "variola" or "copaiba rash" does not fade at the proper time, but persists for weeks together. In one remarkable case of imitated variola which I well remember, the absence of odour was a main point which helped the diagnosis, the history being wholly misleading.

The eruption known as *rupia* is an important and peculiar one. The term *rupia prominens* was formerly in use as applicable to the conical, limpet-shell-like crusts which characterise this eruption. We all remember the portraits of this eruption, so constantly are they met with in Atlases of Skin Diseases. *Rupia prominens*

is of all others the most easy skin disease to represent in a portrait. In practice, however, we now scarcely ever see it. It can occur only when the treatment has been neglected. Rupia is rarely the original form of eruption, but usually results from the ulceration of papules. This ulceration, gradually extending at its base, and producing a secretion which is not very abundant but which quickly dries, causes the crust to enlarge in circumference, and increase in height. Sometimes, and in the most typical cases, a bulla precedes the formation of crust. Rupia invariably leaves scars, and they are almost always round. There has been much misapprehension as to whether rupia should rank as a secondary or a tertiary form of eruption. In conformity with the old error that all forms of ulceration should rank as tertiary, it was commonly classed as such. We now know, however, that this feature will not help us. Many secondary lesions, both of skin and mucous membranes, ulcerate, and the chief distinction between secondary and tertiary lesions is as to time of occurrence. Bearing this in mind, we may admit that rupia never occurs very early amongst the secondary phenomena, and that it is almost always preceded by some other form of skin eruption (roseola, psoriasis, etc.); but, on the other hand, is it ever seen amongst the late and well-charactered tertiary phenomena? Its usual place is, I think, from six to twelve months after the chancre, and in patients who have failed in health under treatment. Sometimes it will persist for a long period, but even when it does so it usually continues to be general and symmetrical. Whenever an eruption displays these features, and occurs within two years of the chancre, it must rank as secondary, and such I feel confident is the usual position of rupia. The scars left by it often help us much in the positive recognition of syphilis, in patients who have reached the tertiary stage. Such

patients do not, however, with the very rarest exceptions, show any rupia ulcers still extant. If we are careful to diagnose between rupia and certain forms of lupus which somewhat resemble it, we shall, I feel sure, be obliged to admit that it belongs almost exclusively to the position which I have just assigned to it, and that it is simply a suppurating modification of the secondary rash. The explanation of the tendency to suppurate is to be sought in some peculiarity in the patient's health, and his susceptibilities to the influence of mercury and iodides. Each of these drugs may in turn appear to aggravate it; and not unfrequently it has been developed during their use. The indication, I believe, always is for the combination of tonics, steel, quinine, or opium, and, above all, for resort to sea air. It is a great mistake to assume, as was formerly done, that mercury is to be avoided when syphilitic sores ulcerate. On the contrary, when used in the associations suggested it will almost always prove the means of cure.

Effects of idiosyncrasy.—I do not know that any other conjecture can be given in explanation of the differences in the eruption which attends syphilis than that they depend upon the idiosyncrasy of the patient. They certainly have nothing to do with differences in the poison, for, so far as we know, none such exist. The different types of syphilitic eruption never prevail epidemically, but, as it were, quite by accident. The rare ones are equally rare, and the common ones equally common, at all times and in all places. Nor do differences in health suffice to explain them, for the most severely ulcerating forms sometimes happen to patients who both before and after their occurrence appear to enjoy robust health. On the other hand, delicate persons often suffer very lightly from syphilis.

Affections of the eye in the secondary stage.—Of these, iritis is by far the most common

It usually occurs from three to six months after the chancre, and is thus distinctly secondary. It seldom attacks the two eyes simultaneously, but the second usually suffers after a short interval, and often in spite of successful treatment of the first. The symptoms are ciliary congestion, a muddy iris, an irregular pupil, and variable degrees of pain and photophobia. Of these in slight cases the demonstration of iritic adhesions by the use of atropine is by far the most important. Sometimes the case never passes the stage of a slight ciliary congestion, which may be gone in a few days. In others the attack may be attended by severe pain, great congestion, a thickened iris, nodules of rust-coloured effusion in its structure, and a blocked pupil. The result, even in severe cases, is usually restoration of almost perfect sight, but in many instances the eye is damaged, and in some it is destroyed. There is generally but little tendency to relapse when once the cure is well in progress, and it is very seldom that the disease lapses into a chronic form. In severe cases the vitreous may be affected, and in a few the choroid and the retina are inflamed at the same time. More usually, however, these structures suffer at a somewhat later period, and when the iris is not itself inflamed. The diagnosis of syphilitic iritis from other forms of the disease must depend to a large extent upon the patient's history, and concomitant symptoms. There is nothing in the symptoms distinctive from those which occur in the arthritic form. The little gummata or nodules in the iris are, when they occur, pathognomonic symptoms, but they are rarely seen. Arthritic iritis is, as a rule, attended by much more pain and intolerance of light than is the syphilitic form, whilst the iris is usually less swollen, and less muddy. Effusion into the aqueous humour and dotted deposits on the back of the cornea may occur in both. The history of

repeated recurrence (once or twice, perhaps, every year) is very common in the arthritic form, and never occurs in the other.

The first aim of treatment in syphilitic iritis is to secure dilatation of the pupil, and for this object atropine drops, four grains to the ounce, must be used every two hours the first day, and less frequently afterwards. The constitutional treatment must be, as for other secondary symptoms, the use of mercury. Iodide of potassium in full and increasing doses will often effect a rapid cure, but it is less certain than mercury. For a patient who was not previously under the influence of either, one grain of the grey powder in pill every three hours until the gums are touched will be an efficient treatment. In the meantime the patient should keep his room, live abstemiously, and, if the pain be severe, have leeches to the temple. If it is desirable to combine opium with the mercury, care must be taken that constipation is not induced. On the other hand, diarrhœa is to be avoided. The safety of the eye depends, however, mainly upon the promptitude and efficiency with which atropine is employed.

At a later period (rarely, I think, till a year from the date of contagion) the eye may be attacked by diffuse retinitis, or by patchy choroiditis (choroiditis disseminata). These affections may occur after iritis has passed off, and all treatment been put aside, or in cases in which iritis has never happened. They are both of them rare, and in each case the objective diagnosis must be made by the ophthalmoscope. In both the subjective symptoms are simply more or less failure of sight with muscæ, but without much evidence of congestion, and with little or no intolerance of light. In both the prompt use of mercury to ptyalism is urgently demanded. This will in most cases effect a cure, often with but very little damage to sight, and with little or no risk of relapse.

This form of retinitis is frequently attended by some opacity of the vitreous.

The mouth and mucous membranes generally.—We have to observe here, as in the case of the skin, that various stages of different symptoms are observed in secondary syphilis. The earliest, and usually, I think, the very first of all secondary phenomena are ulcers in the tonsils. These occur symmetrically, and are often very superficial, and almost painless. They are often present without the patient knowing that he has sore throat, and often pass away very quickly. The condition is usually a kidney-shaped ulcer, with grey-white borders, like “snail-tracks.” Their presence often helps the diagnosis of constitutional syphilis in its earliest stage. They are usually coincident with the erythematous, or roseolous rashes, and like them soon pass away. It is not, however, in all cases that they pass off so easily, and when they do so they are often followed by other and more troublesome forms of inflammation of the mouth and throat. It is a very remarkable fact that the syphilitic poison when freely developed in the blood can cause not only local inflammations and ulceration, but local growth. These differing processes may often be seen side by side in the mouth of the same patient. Patches may form on various parts of the lining of the cheeks and lips, on the gums, and on the tongue, which are simply attended by congestion, slight swelling, and abrasion. These are known under the name of the mucous patch. Upon them we sometimes witness the destruction of the proper papillæ of the tongue, causing the “bald patch,” whilst in other cases the papillæ are hypertrophied. This hypertrophy may produce either warts or condylomata. Between these the chief difference is that in the latter the overgrown papillæ are fused together by swelling of the intervening tissues, and a flat-topped, elevated area

is thus produced, whilst in warts the papillæ are free. There is one particular part of the tongue in which warts are specially prone to grow during syphilis. This is the central region, a little in front of the circumvallate papillæ, which, when the tongue is at rest in the closed mouth, is least in contact with other parts. Two of the figures in Plate IV. show the growth of patches of warts in this precise position. I know of no means by which to distinguish warts due to syphilis from those in connection with other causes. In the case of the condyloma the diagnosis is usually easy, for nothing resembling it is ever produced, excepting in syphilis. At the same time that the mouth suffers the other mucous orifices are very likely to be affected. On the vulva in women, around the anus in both sexes, and under the prepuce in men, mucous patches, condylomata, and warts are very frequently seen. The same remedy which causes the abrasion to heal, and covers the bald patch with freshly-grown papillæ, will also cause the hypertrophies present in warts and condylomata to undergo shrivelling. Thus we may feel sure that both the atrophy and the hypertrophy were the real results of the syphilitic poison. The development and persistence of syphilitic lesions in the mouth will be much influenced by local conditions. They are far more frequent in smokers than in others, and are also more severe, and more lasting. Broken teeth will also often locate syphilitic sores on the tongue or checks, and cause them to persist when they would otherwise have healed.

The tongue in smokers, and occasionally in those who do not smoke, is apt to pass into a condition of chronic disease. This may assume various forms, being sometimes attended by much general swelling, causing bossy projections, with deep sulci between them, whilst in others it is a superficial change, leading to permanent baldness and sclerosis.

The leucomata, or persisting, smooth, white patches, so often seen, must be regarded as the joint result of syphilitic glossitis, and the constantly recurring irritation of hot tobacco smoke. In a majority of cases the latter probably takes the larger share.

Affections of bones and joints.—The periostitis which occurs in the secondary stage of syphilis differs from that of later periods in that it is usually slight in degree, and transitory. Nodes are very rare. It is common enough, however, for patients in this stage to experience pains in various bones, attended by tenderness on pressure, and occasionally by slight swelling, osteocopic pains as they are sometimes called. Rheumatoid pains are also common, and in some cases very severe. Under specific treatment, however, or even without it, these bone and joint affections pass completely away and leave no permanent results. The bones usually affected are precisely those most prone to suffer later on, those, namely, of the skull, the tibiæ, and clavicles. When rheumatism is severe in the secondary stage of syphilis it occurs probably to those in whom there is an inherited tendency to arthritic diseases.

Alopecia, etc.—Loss of hair, a general thinning over the whole scalp, sometimes with a tendency to fall in patches, is a very frequent symptom of the secondary stage. It is sometimes attended by affections of the nails. It is usually arrested by the use of mercury, and the hair grows again as well as before.

The ear.—Not a few patients during the secondary stage of syphilis become a little deaf, sometimes in one ear, sometimes in both. In most cases the condition is merely temporary, often lasting only a few days. In exceptional instances, however, absolute deafness is rapidly produced, and is permanent. Nothing but the rapid and vigorous use of mercury can save the function in these cases.

When severe, I believe both ears are always affected. I do not recollect a single case in which one ear only was absolutely lost in syphilis, the other remaining sound. I am not aware that any opportunities have occurred for dissecting the ears of those who have become deaf in the manner described, and we have consequently no conclusive evidence as to the precise nature of the malady. It may be assumed that it is the same as that in the form of deafness which we meet with much more commonly in inherited syphilis. It usually occurs within a year of the primary disease. We do not know of any form of deafness due to syphilis which occurs in the tertiary stage of the acquired form. In the inherited disease, symmetrical keratitis and symmetrical deafness are both of them very common at or about the period of puberty. Although occurring so many years after birth, yet their constant symmetry seems to prove that they belong really to the secondary group. Keratitis and complete deafness in the acquired disease are almost equally rare, but when they do occur it is in the secondary period, and they are symmetrical.

Menière's disease is now and then closely simulated, or perhaps I should say it is produced, by syphilitic affections of the ear.

Febrile disturbance.—A large number of those who suffer from constitutional syphilis pass through the secondary stage with very little disturbance of general health. They scarcely know that they are ill. With a minority, however, it is otherwise. Severe pains in the bones and joints occur, there is loss of appetite and failure of strength, and, above all, very marked rise of temperature every evening. These indications of constitutional disturbance are sometimes quite out of proportion to the skin eruption and the other local conditions. I have seen more than one case in which a patient was confined to bed, and

supposed to be the subject of some obscure "blood poisoning" with high temperatures for weeks together before the development of a characteristic rash revealed the real nature of the disease. Dr. Duffin, of King's College Hospital, was, I believe, one of the first to study systematically the occurrence of febrile temperatures in association with syphilis. A very remarkable example of temperature ranging from 100° to 104° for several weeks was recently brought before the Clinical Society by Dr. Burney Yeo, of the same hospital. Probably in almost all cases in the early part of the secondary stage, if the thermometer were regularly used, we should find some tendency to evening exacerbations. Although I have said that the fever is sometimes disproportionate to the eruption, it is to be admitted that they are more usually in ratio with each other. The variola-like eruption in particular is almost always attended by much fever, and indeed whenever the eruption is unusually free, whatever may be its type, there is commonly more than usual fever. This occurrence of high temperature simultaneously with the exanthem is another of the numerous facts which support the belief that syphilis ought to be classed with the specific fevers.

Concluding here what I have to say respecting the principal symptoms present in what is known as the Secondary Stage, I now pass on to consider others which occur a little later, and which are intermediate between these and the tertiary ones.

CHAPTER III.

INTERMEDIATE SYMPTOMS.

ALL the usual phenomena of the secondary stage pass away, in most cases completely, under treatment. In a very large majority, at the end of six months from the date of contagion the patient is again in good health, and apparently quite rid of his disease. Unfortunately, however, in a large number, relapses occur, and the patient becomes liable to what have been well designated "reminders." These symptoms are of a kind far less severe and aggressive than most of those known as tertiary, and they often in some features ally themselves with those of the secondary stage. Thus they often display themselves symmetrically on the two halves of the body and on all the limbs. They seldom, however, resemble the secondary symptoms closely, thus nothing is less common than to see a patient who has been cured of syphilitic psoriasis or liehen display the same again in its original characters. The "reminders" to which reference is made usually consist in peeling patches in the palms, sores on the tongue, patches on the scrotum, or it may be a scanty papular eruption over the whole surface. Sometimes sarcocele or gumma of the testis occurs in this association, but more commonly it is later. A very curious liability to a slight and short-lived eruption of erythematous rings is not unfrequently noticed. These rings occur on the arms and trunk, and are especially visible after exposure of the surface to either heat or cold. They are noticed just after getting out of bed in the morning or just after a bath, whether hot or cold. The eruption rarely remains out more

than an hour, often only a few minutes, but it returns over and over again. The syphilitic nature of this curious eruption is often proved by the entire disappearance of the liability to it after a short course of mercury.

Psoriasis palmaris.—Peeling patches in the palms often occur during the secondary rash, but more usually they are seen somewhat later. The earlier they happen in the course of the disease the more likely they are to be symmetrical, and the more easily will they be influenced by mercury. On the other hand, the longer the interval, the greater is probably the share of local causes and the more difficult the cure. There is a form of palmar psoriasis which is distinctly tertiary, almost always one-sided, and in which the patches show a tendency to spread serpigiously. It is to some extent a mistake to call these palmar patches by the name of psoriasis. They seldom if ever show any tendency to scale accumulation, but rather to peeling and destruction of tissue. In the secondary stage, however, numerous separate patches are seen, and although there is never any scale crust, yet their co-existence with psoriasis on the trunk and limbs seems to denote sameness of type with that eruption.

The form of syphilitic psoriasis which occurs late in the disease, which affects only one hand, which is attended by a dusky thickened edge, and which spreads out at its border, assuming the horse-shoe form, is more nearly of the lupus type. It is distinctly tertiary. Let me here remark that it is a great mistake to suppose that all forms of palmar psoriasis are syphilitic. In a majority of cases peeling patches in the palm have nothing to do with syphilitic taint, but are in connection either with the darts state, with senility, or with purely local influences.

Sarcocoele and gumma of the testis.—This affection occurs under much the same conditions as

palmar psoriasis. If both testes are affected the interval since the primary disease will usually be found to have been short ; but if only one be affected, it may have been of several years. Syphilitic affections of the testis are seldom seen either in the early secondary, or later tertiary stage. They belong distinctly to the intermediate group. In this affection we sometimes meet with distinct masses of deposit in the epididymis. The most common condition, however, is a general enlargement of the whole gland with a smooth, rounded exterior. The size attained may be very considerable, possibly as big as a small fist. The enlargement is slow in development, and usually painless. Abscesses may occur if no treatment is resorted to, and these may lead to fungus testis. The syphilitic testis may often be known by its large size, peculiarly rounded outline, and light specific gravity. A gumma feels decidedly lighter in the hand than either hydrocele or malignant growth. However large the swollen gland may be, and however long the disease may have persisted, the surgeon should never despair of the cure by specifics ; mercury and iodide of potassium are both useful, and under their influence the largest and most threatening forms of sarcocoele will melt away. The same remark must be extended to cases in which abscess has occurred and been followed by fungus testis. It is never necessary in such cases to excise the gland, however hopeless the condition may look, for under the influence of treatment a cure, so far as a cure is possible, can almost invariably be brought about. Relapses after cure are, I think, but seldom seen.

Choroiditis, etc. — It is during this intermediate period that choroiditis, if it occur at all, is likely to happen. It is, however, a very rare affection. Sometimes distinct gummata in the choroid may be demonstrated by the ophthalmoscope. These,

under specific treatment, may be observed to disappear rapidly, leaving more or less conspicuous scars and patches of atrophy. In other forms, thinning and absorption of the choroid occurs without any evidence of previous gummata. With the choroiditis there may be inflammation of the retina or optic nerve, or these latter may occur alone.

Disease of arteries.—Cerebral disease, consequent on disease of the walls of the vessels, is an affection very distinct from the other brain and nerve lesions which occur from syphilis. It almost always assumes somewhat of the nature of a "fit." The arterial condition is one of thrombosis, not of laceration. From this fact it follows that the paralysis (usually hemiplegic) comes on, not suddenly as in hæmorrhage, but somewhat gradually. As the vessels become more and more nearly occluded the patient experiences tingling, or twitching, or numbness in the limbs about to be affected, and this may last some hours before all power is lost. Now and then, however, the seizure is very sudden. A certain amount of recovery may be confidently expected from this form of paralysis; but it will seldom be quite complete. It not unfrequently happens that the patient experiences no relapse, but remains through after life with a weakened or possibly contracted arm.

Inflammation of the arteries may begin either as an affection of the intima or of the adventitia. The middle coat, as a rule, is only secondarily involved. When the inner coat suffers it becomes thickened, either in plates, or over long tracts, much as in the early stages of non-specific sclerosis. There are no special characters by which the syphilitic form may be distinguished, if we except the general fact that the cell effusion is usually excessive in syphilis. The changes may advance so as to almost close the artery, or they may lead to ulceration, the detachment of

emboli, and the formation of thrombus at the seat of disease. These processes have been chiefly studied in connection with the arteries of the brain, but they may occur in any part. There appears good reason to believe that syphilitic arteritis is not an uncommon cause of aneurism, and also that it may occasionally cause such occlusion of the arteries of the limbs as may threaten gangrene. As a primary and independent affection, disease of the intima is probably far more common than that of the external coat. If, however, the arteries be affected secondarily (that is, are involved in association with disease of the tissues in which they pass), then usually the adventitious coat suffers first and most severely. It also is the most likely to suffer if arterial disease should occur late in the course of the disease.

The viscera.—It is probable that all the viscera are liable to suffer during the latter part of the secondary stage or even sometimes in its earlier part. They suffer, however, in a manner very different from that which occurs in the tertiary stage. No large nodose gummata are formed, nor are any of the conditions produced at this stage, as a rule, permanent. The process is one of diffuse infiltration, with general congestion, rather than of local growth. The congestion, swelling, and ulceration of the tonsils form the first and commonest evidence of tendency to visceral affection. A little later there may be engorgement and tenderness over the liver and spleen, and a remarkable failure in the blood-making process. Slight and transitory albuminuria may occur, or there may be symptoms of impending lung mischief. All these conditions are rapidly and easily remedied by the administration of mercury. After they have passed away the patient may remain well for several years before the gummata which characterise the tertiary stage begin to appear.

The nervous system.—It was formerly thought that all syphilitic affections of the nervous system came late in the disease, and were distinctly of the tertiary class. We now know that this is to a large extent an error, and that it is not at all infrequent for patients to suffer from implication of the cerebro-spinal system in comparatively early stages. Alfred Fournier has described a very peculiar form of localised anæsthesia or analgesia, which is not uncommon coincidently with the eruption, and the ophthalmoscope has demonstrated the existence of retinitis in many instances soon after or even before the end of the first year.

CHAPTER IV.

TERTIARY SYMPTOMS.

THE division of syphilis into stages is to some extent arbitrary, but for the most part it accords fairly well with clinical observations, and no one can doubt that it is practically convenient. The specification of the primary symptoms is easy, and all will admit that they, at any rate, do not (with rare exceptions) recur after disappearance, or mix themselves up with the later stages. So also of the secondary symptoms. Every one recognises a copious, symmetrical, copper-tinted eruption, and symmetrical superficial ulcers in the tonsils, as characteristic of an early period, and, as a rule, not in the least likely ever to re-appear in the same form if once they have completely disappeared. If a good interval of immunity has occurred, they will certainly not re-appear, but early recurrences are not so infrequent as in the instance of the primary symptoms. Although in the present day, with the all

but universal employment of mercury, we seldom have the opportunity of witnessing spontaneous disappearance, yet we may feel certain that, like the primary stage, the secondary one has its limits of duration, and vanishes after a time spontaneously. In the stage which we are now about to consider, no such tendency to spontaneous cure is observed, and unless the physician intervenes with his remedies, the morbid processes, once initiated, continue to progress. Certainly we have here a very important and quite natural feature of difference between the secondary and tertiary forms of disease. When we add that the tertiary forms are, as a rule, ranged without symmetry when multiple, that they are often few in number, or even single, and that we frequently observe them after an interval of immunity extending over many years, it will be yet more clear that they constitute a separate group. We make no distinction as to the tissues affected, asserting that all the tissues, or any single tissue, may suffer in any one of the stages. It is not a question of the tissue attacked, but of the peculiar types assumed by the morbid process, which constitutes the difference.

As regards the stage which I have ventured to name intermediate, it is far less easy to separate it on the one hand from the secondary, and on the other from the tertiary. As its name implies, it stands between the two, and it partakes of the nature of both. Its phenomena are sometimes symmetrical, at other times not so, some of them disappear without specific treatment, though most of them probably do not. This stage may begin before the secondary is well over, and may be prolonged until that which is definitely tertiary begins. If it were practicable to use inoculation as a test of stage we might, perhaps, be able to distinguish them more definitely. In the primary stage the local lesion is alone capable of conveying the contagion

to another person; in the secondary stage the blood and all fluid tissue elements contain the virus, whilst in the tertiary stage contagion is probably not possible. The precise date at which the blood ceases to be the vehicle of contagion might be claimed as the end of the secondary stage. In most persons probably it occurs between the end of the first year and that of the second. In some it may be much later. Thus, then, I think, we have clear rational data for the division of the stages. In the primary stage syphilis is for a short time a local disease; then in the secondary it is an universal, or blood and tissue malady; and finally, in the tertiary, it is a disease of tissues but not of the blood, and its manifestations are irregular. In most cases they are absent, and when they do occur in a strong, if not an absolute sense of the words, they are local only.

We must again, and always, be on our guard against observations possibly made erroneous by the fact that we study syphilis as modified by mercury, not in its spontaneous development. For myself, however, I may say that I do not believe that there is any reason to think that any of the stages or symptoms of syphilis are made more severe by mercury. The protraction of the stages, the persistence of symptoms, the liability to recurrence, and the frequency of tertiary phenomena, would probably all be greater if the disease were left to itself.

The conditions just mentioned as among those which are most frequent in the intermediate stage, are obviously, some of them, the same in name as those which we witness in the secondary period, whilst others are those which might have been expected later on. They are, however, usually different in certain features from their homologues in the other stages. The erythematous ringed eruption, for instance, is never exactly repeated in any other

period. The peeling patches in the palms are more superficial, much fewer in number, and slower in development than the psoriasis which sometimes in the secondary stage affects the same part. Everything in this stage is feebler in type, less acute than in the secondary, whilst there is much greater proneness to wide diffusion or multiplicity than in the tertiary.

A few words must here be said respecting certain cases in which the secondary and tertiary stages are reputed to run into one another, or in which the disease develops itself so rapidly that they are not to be distinguished. Rightly classified, these are, probably, simply cases in which the specific is not successful, and the secondary stage is, therefore, persistent and severe. The disease remains throughout generalised, and it never assumes the more distinctive local peculiarities of the tertiary stage. We must not count severity of local processes, that is, tendency to suppurate or to ulcerate deeply, as being a peculiarity of any one stage. It may occur at any period if the treatment fails to entail the malady. The treatment which is almost always successful in these cases confirms this view as to their nature. If we enable the patient to bear mercury by sending him to the country or to the sea, we usually succeed in curing the disease, and the liability to true tertiary symptoms after a long interval of immunity will come just as in other cases.

Tertiary symptoms.—What are, then, let us now ask, the true tertiary symptoms? Those to which a syphilitic patient may become liable five to ten, or even twenty, years after his disease, and after, it may be, a long period of good health. We shall find that they are mostly of the nature of gummata, and that they all possess the peculiar feature of tendency to local spreading to which, when it shows itself in the skin, the term *serpiginous* is given. All of them, when they recede, leave a state of sclerotic

atrophy, or, in a few instances, of hypertrophy, of the part involved. In almost all we see good reason to believe that in addition to the syphilitic taint some localising influence takes an important share in evoking the local changes. If we attempt to enumerate some of the chief, they are the following :

Chronic and relapsing periostitis, leading to osseous nodes or sclerotic hypertrophy of bone, but if neglected to suppuration and necrosis.

Muscular nodes, or gummata in the substance of muscles, which often, by their absence of inflammation and comparatively slow growth, simulate tumours.

Gummata in viscera, liver, testis, lung, etc., slow in progress, as just noted in the case of muscles.

Gummata in fibrous structures, and in cellular tissues. The meninges of the brain and spinal cord, the capsules of joints, and the subcutaneous cellular tissue generally, are the parts most likely to be affected.

Diseases of the skin of a lupoid type ; gummatous or tubercular in commencement, serpiginous, and leaving scars.

Diseases of the tongue of a gummatous or simply inflammatory form ; in either case leading to sclerosis. These affections are so much influenced by the habit of smoking that it is often quite impossible to say how much is due to the one and how much to the other cause. Superficial sclerotic hypertrophy is a not infrequent result ; but as regards this condition and several others formerly supposed to be due to syphilis only, it is unquestionable that precisely similar ones may result from smoking only.

Aggressive structural disorders of the ganglionic, conductive, or central parts of the nervous system, leading to such affections as :

Ataxy and its complications.

Ophthalmoplegia externa.

Ophthalmoplegia interna.

General paralysis of the insane.

Amaurosis from optic atrophy, with various complications.

Paralysis of special nerves (the fifth, the facial, etc.).

Conditions implying general tendency to tissue degeneration, such as amyloid disease.

Chronic inflammations of mucous membranes in certain regions, attended by thickening and ulceration. These occur especially in the mouth, pharynx, rectum, and female genitals (*æsthiomene*).

In most of these there is not at any stage evidence of active inflammation, nor is there any proof of deposit or growth which might deserve the name of gumma. No doubt a very chronic and slightly effusive form of inflammation is at first present, but it gives place quickly to atrophic changes. There is every reason to believe that the initial disease is ser-piginous, or locally infectious, for we find it slowly spreading to adjacent parts unless arrested by treatment. Excepting in their early stages, these affections are not usually much influenced by specific treatment.

The influence of specifics in the treatment of tertiary affections is variable and uncertain. Sometimes, as in the case of large gummata of the tongue or of muscle, their influence is shown very quickly, and a cure is easy. This, however, is by no means the case in many of the other tertiary affections. Some of them progress steadily in spite of treatment, or relapse very speedily when it is suspended. In many a distinctly beneficial influence is secured whilst nothing like a cure can be obtained. Especially is the last statement true concerning many of the affections of the nervous system, which are remotely connected with syphilitic taint. Thus the non-success of treatment can by no means be accepted as conclusive in regard to diagnosis.

Many disorders are in association with a distant taint of syphilis, which yet do not respond definitely either to iodide of potassium or mercury. In nearly all cases, however, these remedies do some good, and it may easily be the fact that they are often laid aside just when decided benefit was about to accrue. A careful study of the therapeutics of lupoid affections of the skin, due to syphilis, will probably much help our conceptions of what takes place in parts which are hidden from our view. Syphilitic lupus very often does not get well under iodide of potassium, but vanishes at once when mercury is pushed. Very often, indeed, it gets almost well under one or the other of these drugs, and the patient, satisfied with the result, leaves off treatment before the cure is absolute. If the least portion of lupous structure be left, from that the process will again spread. On the other hand, if the patch be quite well, and nothing but healthy scar be left, then it is very rare to witness any relapse. In proof of the resistance of this malady to specifics, the fact may be adduced that many cases, in spite of treatment under different surgeons, last half a patient's lifetime. We have but to apply this experience of the power of resistance of syphilitic cell growths in the skin to the nervous system, and we shall understand why such maladies as ataxy and ophthalmoplegia often prove intractable. Iodide of potassium, given in sufficient doses, is usually very efficient in the cure of tertiary affections of all kinds. In some respects and in some cases it seems even more useful than mercury. In many instances, however, it depresses so much that its use must be abandoned, and in all such mercury usually succeeds. Whenever a case resists the iodide, and whenever it is important to obtain a rapid result, the two should be combined, or mercury should be given alone.

The prognosis of tertiary disease depends wholly upon the success or non-success of our treatment. In

their own nature. all affections of this class are progressive and show no tendency to spontaneous amelioration. Even when much helped by specifics, there is a great risk of relapse. In many cases, however, when once a complete local cure is obtained, no relapse whatever occurs, and the patient will remain well for many years. In former times, before the introduction of the iodide of potassium, and when we knew less as regards the best methods of using mercury, many cases of tertiary disease ended fatally.

It will be understood, from what has been advanced, that the diagnosis of tertiary syphilis is beset with difficulties. In many cases it is very easy, but in many the sources of fallacy are such that they cannot be wholly overcome. As in the earlier stages, we still find the disease playing the part of an imitator. The form of ataxy which occurs to the syphilitic, and which is in part at least due to their former taint, is usually closely similar to ataxy when due to other causes. Many cases of syphilitic lupus are exactly like common lupus, and so of most of the other affections. The imitation is, however, very frequently at fault in some details. Without here going into any detail as regards the diagnosis of special affections, it may be said in general that suspicion should be aroused whenever a chronic malady is irregular in its development and course. The syphilitic simulations are seldom quite perfect, and they often develop in a more rapid manner than do their prototypes. In all such cases the history must be carefully inquired into, and upon it the diagnosis must in many cases rest.

CHAPTER V.

TREATMENT OF SYPHILIS IN GENERAL.

Treatment.—Many questions of treatment have already been discussed in the preceding pages, but the subject is so important that, at the risk of repetition, it may be well to recapitulate and enlarge upon it. The treatment of syphilis has in recent years almost narrowed itself down to the judicious use of two specifics. When we have constructed sound rules for the administration of the iodide of potassium and of mercury, our task is almost done. In former times various vegetable specifics enjoyed a certain amount of repute. The discovery of the iodide of potassium, and the assignment of its place as the adjuvant of mercury, have, however, so fully reinforced the latter drug that we now seldom hear mention of any other remedies. It is precisely in the cases in which mercury either fails to cure or definitely disagrees that the iodide is efficient, and few indeed are those which the judicious use of one or the other, or of a combination, will not conduct to a satisfactory conclusion.

Some general rules may be offered for guidance in the employment of these important drugs.

In the early stages of syphilis the iodide of potassium is comparatively powerless, and mercury should be used. Thus, the induration of a primary sore will resist the influence of the former, but melts away at once when mercury is given. So also of the secondary phenomena, all of which, excepting, perhaps, sore throat and sores in the mouth, are best treated by mercury. The later the manifestation, the longer

the period since the primary symptoms, the greater the probability that the iodides will prove efficient. Thus, against all forms of tertiary gummata, whether in muscles, in cellular tissue, or in glands, the influence of the iodide is usually shown in the most rapid and definite manner. A lump in the tongue, in the testis, or in a muscle, will often be absorbed under the iodide with a speed not less remarkable than the disappearance of a large primary induration under mercury. Nor does the precise stage of the gumma appear to make much difference, for the specific power of the drug is shown just as clearly against an open ulcer as against a deeply placed infiltration. From this assertion of the efficiency of the iodide against all tertiary symptoms, it must not be assumed that mercury is not useful in them, nor even that, in many such cases, it is not the better of the two. With some, however, it certainly does not agree; a fact which was abundantly proved by the frequent intractability of tertiary syphilis, in the times before the iodide was known.

In forming a comparative estimate of the value of these two drugs, attention must be given not only to the stage of the disease, but to the dose of the remedy and the idiosyncrasy of the patient. The iodide has certainly during the last ten years lost some of the repute which it enjoyed, and mercury has correspondingly gained. This gradual change of opinion has been coincident with the employment of mercury in much smaller doses than formerly, and its combination with tonics. In a great number of patients, mercury, if the dose be but small enough, seems itself to act as a tonic, and careful observations have proved that not only does it favour depuration by the glandular system, but that it actually increases the number of red corpuscles in the blood. Everything depends upon the dose. Instances of extreme idiosyncrasy are not

common in the case of mereury, but we do occasionally meet with patients in whom the smallest doses disagree, and, conversely, with others who take very large doses for long periods with but little appreciable effect. With regard to the iodide, idiosyncrasy plays a much more important part. Many persons cannot take ordinary doses without poisonous effects; many more, who can take them, yet experience under their influence, curative as regards the malady, a degree of depression of nerve tone which causes real distress. Whilst, in the case of mereury, tolerance is seldom much increased by habit, the reverse is the fact as to the iodide. With the latter, in almost all persons, without regard to idiosyncrasy in the first instance, it is possible, by gradual additions, to obtain at length tolerance for large doses. It is one of those drugs respecting which the curious statement is true, that the dose does not much matter. We often get as good effects from small doses as from large, and the most severe examples of poisoning have usually been from very small ones. I have often known patients cured in the most definite manner by doses of less than a single grain, and, on the other hand, a patient has taken, on his own prescription, more than an ounce and a half in the day. If a patient has become tolerant and his symptoms do not yield, it is often wise to increase the dose freely; but, as a rule, it may be doubted whether the very large doses, now or recently in fashion, do anything more than might be effected by much more moderate quantities.

The fear of causing absorption of the mammae or testes by the prolonged use of iodides, exercises but little influence on the minds of modern prescribers. Although, however, these results are very infrequent, yet it must be fully recognised that the iodide does often depress the sexual function very definitely whilst it is in use, and possibly in some instances does

permanent injury to it. Many persons become low-spirited and miserable whenever they take it.

With many prescribers, and especially in France, the iodides of mercury enjoy much favour. There can be no doubt that they are exceedingly efficient, but they are for the most part more irregular in their action, more liable to gripe and purge, or even to salivate unexpectedly, than are most of the uncombined preparations of either of their components. It may also be doubted whether their combined salts are in the least more efficient than the simpler preparations, which have the advantage of less variability in effect. Those who aim at simplicity of prescription may therefore, without any risk of loss to their patients, be well content to learn the details of the use of mercury and the iodide of potassium severally or together, and may venture to pass by their combined salts. It would be most tedious to attempt to describe the modes of use of the latter; and as their doses, etc., may be found in all prescribers' manuals, further reference to them will be omitted.

Mercury may be used in many different ways, and so efficient is it in all that each one has its warm advocates. All that is needful is that it shall be got into the blood and brought into contact with the tissues; and any method which does this without material interference with the patient's health or disturbance of his digestive functions, is satisfactory. Perhaps we ought, in these respects, to give the palm to those methods (inunction and fumigation) which introduce the drug by absorption through the skin. They are certainly less liable to be followed by purging than when it is given by the mouth. Here, however, their advantages probably end. It may well be doubted whether the claim put forward by their respective advocates, that they are more definitely curative, is borne out by facts. On the other hand, it

is very easy to give mercury by the mouth in such a manner that it shall not in the least interfere with the stomach, and this method of treatment is in most instances much less inconvenient to the patient. I may here avow that, after plentiful opportunities for the observation of different methods, I have adopted the practice of keeping the skin methods in reserve for exceptional cases, and that under all ordinary circumstances I administer the remedy by the mouth. One simple rule appears to be the key to success. It is to give small doses more or less frequently repeated, and never large ones.

Hydrargyrum cum cretâ is, perhaps, the most constant and least variable of all preparations. It may be made into pills of one grain, in combination with one grain of Dover's powder if necessary, and of these the patient may take one every six, four, three, or even two hours, according to circumstances. Usually, one pill four times a day will suffice to clear away a chancre or a secondary eruption as rapidly and as completely as can be wished. In some cases, it may be more convenient to double the dose than to increase the frequency of administration, but the latter, if the patient is willing, is the better plan. If ptyalism should occur with such doses, it will certainly be mild and easily controlled. As a rule, however, all the symptoms of syphilis may be got rid of without any affection of the gums. If such affection should occur, it usually implies the full physiological influence of the drug, and a very rapid subsidence of symptoms may be simultaneously expected.

During a mercurial course, fruit, green vegetables, coffee, all aperients, and for the most part all stimulants, should be forbidden. The patient should carefully wash his teeth and gums twice in the day, and it will be better that he should not smoke. All irritation of the mouth by smoking increases the risk of

mucous patches, and tends to make sores in the throat more difficult to cure. The reason for abstinence from coffee, fruit, etc., is the risk of their causing diarrhœa. A patient, taking the remedy in the form and doses just indicated, may go to business as usual, and is in no particular risk of taking cold. If he is much out in the fresh air, he must expect some delay in the influence of the specific, and be prepared to require larger doses. In like manner, all tonics (quinine, iron, etc.) enable the system to resist mercury, and should be used only when really necessary. If a patient be kept in bed, and on rather low diet, he will yield much more quickly to mercurial influence, and ptyalism may be induced, under such conditions, with half the doses required in one who is about in the fresh air.

As regards the production of ptyalism in the treatment of syphilis, we may say that, although often the most rapid disappearance of symptoms takes place when it occurs, it is certainly to be avoided. If it is profuse, and necessitates the suspension of the remedy, the latter should be used again in smaller quantities as soon as the mouth has recovered. Some of the most severe outbreaks that we ever witness occur to those who have been rapidly cured by a short ptyalism in an early stage, and have then left off the remedy. It is especially under such conditions that rupia is prone to occur.

If mercury be given for an indurated chancre in the manner indicated, it may probably require about a month to get rid of all hardness, but the period varies much in different persons, and is perhaps also in relation with the stage at which it is commenced. If it is begun before any secondary symptoms have shown themselves, it is very common for them not to appear at all, or, at most, only in the very slightest form. Sores in the throat are the phenomena least frequently omitted. It is, probably, quite the rule for the skin

to escape. If, however, at any period within six months the mercury be suspended, then, within a few weeks of the suspension, a rash may show itself. Such rashes, when they occur, however, are always mild, and their mildness seems proportional to the length of time during which the mercury has been administered.

As yet no statistics have been collected which would enable us to speak with any confidence as to the relative efficiency of different methods of treatment in preventing relapses. We do not know, with any certainty, whether those who have been freely salivated are less prone to relapse than those who have taken such small doses that they have never felt their effects in any other way than the disappearance of symptoms. This remark as to relapses of secondary phenomena applies also to tertiary symptoms. We believe, and probably on good grounds, that those who have taken mercury freely and for long periods, in the early stages of the disease, are less liable than others to the subsequent development of tertiary symptoms; but it must be admitted that proof is wanting. With the prevailing unanimity of opinion in reference to mercury, it is very difficult to get cases for observation in which it has been omitted. Syphilis is in its nature so variable, that it is unsafe to assume that what a few cases appear to teach is really the fact. There can be no doubt that very often we meet with severe tertiary symptoms in those who, from the history given, appear to have had very short or irregular treatment in the first instance. Unfortunately, however, there are some cases on the other side which show persistingly recurring reminders, and even severe tertiaries after specific treatment of the most careful and prolonged kind. As a general rule, mercurial cures in the secondary stage stand good, and a large majority of our patients know

nothing more of their disease. But there are exceptions, and these occur after all the various modes of administration.

If we are allowed to estimate relative efficiency by the rate of disappearance of the phenomena, then it is probably true that the internal use of grey powder in small doses, frequently repeated, is just as useful as either inunction or fumigation.

To the credit of the method by small doses frequently given, it is to be clearly and strongly stated that patients usually improve in health under them. If purgation be avoided, the patient will often enjoy improved appetite and digestion, and may gain in weight and colour. At the end of a six or nine months' course, he may allege that he never was in better health. Those who have before suffered from constipation and liability to headache, may get quite rid of these troubles and may continue permanently free. In women who have suffered from painful menstruation, the mercurial course may prove a complete cure. These clinical facts, which are matters of frequent observation to specialists in syphilis, are so definite that they are well worthy the attention of the general physician. It is well known that many distinguished therapeutists have become enamoured of mercury for various chronic ailments, such as scrofula and some forms of dyspepsia, as well as for those in which the liver is more especially concerned. Experience in respect to syphilis would go to show that the drug may be used without any fear of loss to general health, if employed in the way suggested. On the other hand, there is no doubt that severe forms of cachexia and debility may be induced by the irregular and excessive administration of this potent drug.

As regard its mode of influence in syphilis, we may reasonably suppose that it is requisite that it

should be brought into contact with the cell elements concerned in the morbid process. Wherever its local application is practicable, we know that it is usually very efficient. Administration through the blood is necessary only when the disease is generalised, as in the secondary stage, or when its manifestations occur in parts which are not accessible. In a general way, it is well to combine local with internal use. For the primary sore, an efficient dressing with the black wash unquestionably expedites the healing and the disappearance of induration, and so also of the secondary eruption, the removal of which is materially helped by the inunction of a mercurial ointment. For this latter purpose, the ammonio-chloride, in the proportion of fifteen grains to the ounce of lard, is very convenient. Its use is especially desirable when the eruption affects the face and hands, and its early removal becomes a matter strongly desired.

The remarks just made may fitly introduce more detailed statements as to the efficiency of local treatment, in all cases in which the disease has passed the secondary stage. Very remarkable instances of this are not infrequently seen. Cases, in which the internal use of specifics has been long continued with only very partial benefit, may be cured very quickly by local measures. Not only may they be cured, but the cure may be a permanent one, and thus a very strong argument is afforded in favour of the essentially local character of such phenomena. Respecting all forms of syphilitic phagedæna in the tertiary stage this is well known. Although the administration of the iodides, or even of mercury, is usually very useful, yet by iodoform, or by cauterisation with the acid nitrate of mercury, the cure may be accomplished in a fifth of the time. So, also, syphilitic palmar psoriasis and syphilitic serpiginous diseases of lupoid type are best treated locally. An ointment,

containing one drachm of iodoform to the ounce of lard, if liberally used, will often effect an unaided and rapid cure in such cases. To many it is unquestionably more efficient than any of its competitors. In all syphilitic skin diseases in the tertiary stage, whether ulcers or new growths, its use, if the patient will permit it, should never be omitted. That it is not necessary to use a specific is, however, fully proved by the efficiency of caustic applications for the same purpose. A single free application of the acid nitrate of mercury may be sufficient to permanently cure a patch of syphilitic lupus, which had resisted much internal treatment. It would appear that the cell organisms of such growths possess but feeble vitality, although persistently infectious, and are thus easily killed by any caustic. The point is to destroy every portion, for if the smallest particle be left behind, it will suffice to reproduce the malady. From what we see of the efficiency of specific applications and internal treatment, in the case of serpiginous affections of the skin, it is probably fair to infer as to their power in diseases of internal parts and especially of the nervous system. If in the former we stop short of a complete cure, the morbid process will be relighted, and a relapse will follow; but if the local cure be perfect, then it will probably be permanent. In this way may probably be explained the frequent disappointments in reference to disease in hidden parts. We do not push the treatment far enough.

After what has been just said, it is clearly impossible to lay down any rules as to the duration of an anti-syphilitic treatment. It will depend upon the method employed and the effects produced. If the case be one of primary or early secondary syphilis, and the treatment adopted be that by small doses of mercury without ptyalism, a six months' course will probably be sufficient. During the last four of this

period, the patient may probably have been quite free from symptoms. Even after this long course, we must be prepared, in a certain number of cases, to see a symmetrical eruption produced within a few weeks after the suspension of the drug. This rash will probably be an erythema of a very mild kind, and will disappear promptly when the remedy is resumed. Unless some symptoms should show themselves, there is probably no good reason for again resorting to specifics. If the patient be married or intending to marry, it may be wise to continue mercury for a much longer period, with or without brief omissions. Some good authorities advocate short intermittent periods of administration, and no doubt excellent results may be so obtained. On the small dose system, however, there seems but little reason for ever suspending it until it seems wise to wholly desist.

It may be convenient to introduce here a few details as to the different methods of using mercury for the cure of syphilis. The inunction method is one of very old repute, and still largely used on the Continent. It gives to Aix-la-Chapelle the reputation which brings to it crowds of patients. At this place, where the details are so well understood, it is customary to have the ointment rubbed in by trained attendants. These men occupy from twenty minutes to half an hour at each friction, and use about half a drachm of the strong mercurial ointment. Everything that is done at Aix can be done equally well at the patient's home. All that is necessary is, that he should give himself up to the treatment and observe proper precautions. The ointment should be rubbed into different places on successive days, so as to avoid the production of eczematous irritation. Generally, it is best borne on the sides of the chest and abdomen, but the inner sides of the arms and thighs are also convenient positions. After the rubbing, the patient should put on

a flannel gown and go to bed without washing. In the morning a warm bath may be taken. At Aix, a course of rubbing is usually one month, the quantity used and the frequency being modified according to the effects produced. It is usual to advise patients to return after a few months for another course, in order to complete the cure. Excellent results are usually obtained in this way, and not infrequently patients are cured, whose symptoms had been very difficult to deal with under other methods. The explanation of these is, however, usually this, that the other methods had never had a fair chance, owing either to the patient's irregularity in their use, or inattention to diet and exposure to cold. It may be alleged for the inunction plan that it is less likely to disagree, by causing colic or purging, than the internal administration, and that it is very certain in its effects. It may, however, with good reason, be doubted whether it has any other recommendations, and more especially whether the claim put forward that its cures are more permanent than others is well founded.

At several continental watering-places of repute for the treatment of syphilis, popular attention is fixed upon the use of warm sulphur baths quite as much as upon the mercurial rubbing. There is no reason, however, to believe that these exercise any share in the cure.

Another endermic method of administration is by the fumigation bath. This plan was perfected by the late Mr. Langston Parker, of Birmingham, and has been very successfully employed by Mr. Henry Lee and others. Calomel is the form of mercury now usually employed. It should be specially prepared, and of great purity. The patient is made to sit over a lamp upon which the calomel, in quantity of from a scruple to half a drachm, has been placed. The calomel is sublimed by heat in company with watery vapour, and is deposited on

the patient's skin. When the process is completed the patient is made to wrap himself in a flannel gown, and without any washing or drying to go at once to bed.

This method has the same advantages as that by inunction, and is exceedingly efficient. The two share in the disadvantage of being much more troublesome than administration by the mouth, and although less liable to purge, they are at least equally prone to cause unexpected salivation.

Hypodermic injection has come but little into employment in English practice, nor does it appear to increase in favour with those continental surgeons who at one time thought highly of it. Mr. Astley Bloxam, at the Lock Hospital, employs it largely, and considers it, on the whole, the most efficient and least troublesome method. Inasmuch as the surgeon administers the dose himself, he has the fullest control over its employment. Mr. Bloxam has in verbal communication with me insisted on the following precautions :

In order to prevent irritation and abscess, the injection should be made into muscle and not into cellular tissue. The needle should always be washed after the syringe has been charged, so that none of the fluid may touch the skin during introduction. It is sufficient to inject a third of a grain of the bichloride of mercury, dissolved in twenty drops of water, once a week. Three such injections, made on consecutive days, will usually salivate freely, thus proving the efficiency of the method. The gluteus maximus is the most convenient muscle for the purpose. The solution should always be freshly made when wanted.

Some important memoranda may be offered as to the use of the iodide of potassium and other iodides.

In some cases the iodide of sodium depresses less

than the potassium salt, and acts as efficiently. It is a very good practice to combine the three iodides (sodium, potassium, and ammonium) in the same prescription. Whether given singly or in combination, some free ammonia, preferably sal volatile, should always be added. It much increases the efficiency of the iodide salt. It is never well to begin with a large dose of an iodide. Small ones are, in the first instance, just as efficient as larger ones, and it is often a great point to go on increasing them. Doses of two or three grains will often, at first, do as much as those of ten or more. Every week, if the cure is not progressing rapidly, two grains should be added to the dose.

Coryza is the commonest of all symptoms due to the iodide when it disagrees. It may be very profuse at first, but usually lasts only for a short time. In other cases the patient may suffer from a chronic cold in the head so long as he continues the drug. When this is the case, there is generally definite depression of tone as well, and the surgeon will do wisely to try whether he cannot effect the cure better by small doses of mercury.

The skin eruptions which may be produced by the iodide are very various in their characters. They are certainly due to idiosyncrasy, and have little or no relation to the dose employed. They usually develop very quickly, and sometimes with great severity after two or three doses. When once an eruption is produced, we seldom witness any tendency to disappearance so long as the drug is continued. Usually the eruption becomes aggravated both in amount and character. A form of acne is the commonest type of iodide eruption, but hæmorrhages, erythemata, vesicular and bullous eruptions, may occur. Now and then we witness the formation of large bossy wheals, which may develop to a very great size. Some of

these eruptions may closely resemble, to the inexperienced eye, syphilitic eruptions, and thus the remedy may be further pushed, in the hope of curing that which it is itself producing. In such cases, occasionally a fatal event by exhaustion may be brought about. When eruptions occur, either reduction of dose or disuse of the drug is usually definitely indicated.

Most patients bear the iodides best when in vigorous health, and, in the stage in which they are needed (the tertiary), it is generally wise to employ tonics and fresh air freely. Arsenic has repute as tending to prevent eruptions, and many persons will bear full doses when enjoying the advantage of sea air, who are much depressed by them under other conditions.

An extempore combination of the bichloride of mercury with the iodide of potassium enjoys a high repute in English practice. In doses of one drachm of the Pharmacopœia solution of the bichloride ($= \frac{1}{15}$ th of a grain), with four or five grains of the iodide, and half a drachm of sal volatile, a very efficient compound is obtained, which seldom disagrees.

It may be well to mention, in relation to special measures of treatment, certain peculiar symptoms and conditions which may need special rules.

Ulcers in the throat and sores in the mouth in the secondary stage.—Give mercury, use black wash as a gargle, or dust the sores with iodoform. If they prove intractable, touch them lightly with the acid nitrate of mercury or some other caustic. If very painful, it is necessary to consider whether they may not be aggravated by mercury, especially if the latter have been long used. If this appears probable, mercury must be disused, and the iodide of potassium given. Smoking must always be prohibited.

Ulcers in the throat in the intermediate or tertiary stages.—These are often phagedænic. Iodide of potassium must be freely given, and iodoform applied by insufflation, or by means of a camel-hair pencil. If, in exceptional cases, the condition persists, the sore must be freely touched with the acid nitrate of mercury. It is a rapidly destructive condition, and the treatment must be efficient. There is usually no objection to small doses of mercury, but the iodide will generally suffice.

Iritis, retinitis, uenritis, etc., in secondary stage.—Push mercury rapidly to slight ptyalism, and in iritis use atropine very freely. Large doses of iodide of potassium will usually suffice for these affections,¹ but mercury is better.

Ulcerating secondary eruptions of the rupial type.—These usually occur after mercury has been given in too large doses, has disagreed, and been wholly laid aside for some time. Mercury, in combination with the iodide of potassium, is indicated, or mercury may be given alone. The iodide alone is rarely sufficient. Ptyalism is to be carefully avoided, and, if success is not soon obtained by other methods, inunction or fumigation should be resorted to. Sea air is often very valuable. When once the cure sets in, it usually progresses well, and is in the end complete. Iodoform ointment should be used to all sores.

Phagedæna in all forms and stages.—Iodoform is by far the most convenient, least painful, and most efficient agent. It will probably supersede all the older methods. Should it not succeed, constant immersion, the acid nitrate of mercury, or the actual cautery, may be employed. Mercury and the iodide should be given with opium. If all fail, the patient must be at once sent to the seaside, and the same remedies used there.

Disease of arteries (indicated by cerebral attacks).—Give a long course of small doses of mercury, or, less efficient, of the iodide.

Periostitis and all forms of bone affection.—Here the iodide of potassium is most efficient and relieves pain more quickly than anything else. If the ease resists, however, mercury should be used, and it will often succeed in removing hard nodes which the iodide had failed to influence.

Periostitis and bone affections in the inherited disease.—The same remedies must be used, but much less rapid results must be expected. Very often nodes in this connection resist treatment for some time, and then suddenly disappear.

Lupoid affections of skin in tertiary stage.—Rub in iodoform ointment, and apply it on lint; or, if the part be one to which this cannot be conveniently used, or the smell be an objection, apply the acid nitrate of mercury freely. Iodide of potassium may be given, but, if not successful, it should at once be substituted by mercury, which often succeeds when the iodide fails.

Phagedænic lupus of nose and face from inherited syphilis.—The destruction may be very rapid, and the treatment must be prompt. Cauterise freely with acid nitrate, and then dress with iodoform ointment. Give iodide and bark.

Interstitial keratitis of inherited syphilis.—Give a long course of small doses of mercury with bark. Send patient to sea or country during the treatment. Use atropine or belladonna fomentations.

Locomotor ataxy or other chronic and aggressive nerve disease with syphilitic antecedents.—Give mercury in small doses to slight ptyalism. If benefit results, repeat the treatment after a month's interval, or give smaller doses without ptyalism over a period of six months or a year. Many

such cases relapse, and need a repetition of treatment. Inunction is very useful, but not more so than small doses by the stomach. Iodide of potassium is also very efficient, but probably less so than mercury.

In cases which resist mercury, and in which it is wished to induce ptyalism rapidly, use the hypodermic method, employing a third of a grain every day for three or four days; or use mercury by the mouth or inunction and insist that the patient shall keep his bed.

In cases of pregnancy in which it is desired to protect the fetus, administer small doses of mercury (one grain of grey powder, or one drachm of the solution of bichloride, three times a day), through the whole period. There is possibly a minor objection to this, that it may damage the child's teeth (first set), but upon this point careful observation is necessary.

In cases in which marriage is in prospect, let the patient take small doses of mercury continuously during the whole period before marriage. Abstain from the iodide of potassium. However efficient and long-continued the treatment, no one should marry until two full years have passed from the beginning of the disease.

CHAPTER VI.

ON CONGENITAL SYPHILIS AND THE LAWS OF INHERITANCE.

THE terms "congenital," "transmitted," and "hereditary" may, so far as syphilis is concerned, be considered as synonymous. They all stand in contradistinction with "acquired," and imply that the disease has been obtained from a parent before birth, and not

from post-natal contagion. In all cases of acquired syphilis (with the exception perhaps of a woman pregnant with a tainted foetus) a primary sore, or chancre, is of necessity the first stage of the disease. In inheritance no such sore occurs, but the virus passes directly from the fluids of the parent into those of the child. The term "congenital" must not be held to imply that the inheritance is obvious at the time of birth, for it may easily be the fact that no signs of it become apparent until long afterwards. Not the less is it true that the taint, or rather the living virus, is always existent in the child at birth.

There may be some variety as to the precise mode of inheritance. It may be that it is from the father alone, or from the mother alone, the poison being in each instance present in the one parent at the time of their child's conception. To these modes we may give the name "conception inheritance," qualified as "paternal" or "maternal," or "sperm inheritance" and "germ inheritance" respectively. This is the only kind of direct *paternal* inheritance possible. The mother may, however, be the means of communicating the disease to her offspring in another manner. It may have been the fact that at the date of impregnation she was perfectly free, and that she acquired the disease at some period of her pregnancy. In this case the foetus will receive the poison, not at the very starting point of its existence, but after a period, of variable length, of healthy intra-uterine life. Facts in abundance prove that at whatever period of pregnancy a woman acquires syphilis, if only time be allowed for her development of the disease, there is great probability that it will pass from her to the foetus. Nor, we may remember, does this happen in the case of syphilis only. If a pregnant woman suffers from small-pox, her foetus will also be affected, and very probably it is the same with the other exanthemata.

It may be convenient here to ask whether the transmission of syphilis in this way from the mother's blood to that of her child, through the placental circulation, produces results differing from those which follow sperm inheritance or germ inheritance. The question may be answered, temporarily at any rate, with a denial, and the *onus probandi* may be suitably thrown on those who assert it. I once attended a lady in the seventh month of her pregnancy for primary syphilis. I saw her indurated chancre and also her rash. Her husband was also under my care for the disease. The child was born looking healthy, but it began, as usual, to suffer from snuffles at a month old, and it went through a severe infantile illness with all the usual symptoms. It recovered under mercurial treatment, but subsequently showed the characteristic teeth and physiognomy, and had a severe attack of keratitis with periostitis of the tibia and effusion into both knee joints. This child has been under my observation for fourteen years, and there has been nothing whatever to distinguish its symptoms from those which we see so frequently as the result of sperm or germ inheritance. Other cases of a similar kind might be adduced, and they justify us in holding for the present that the results of intra-uterine infection and conception infection may be, and probably are usually, closely similar.

We must next ask whether sperm inheritance differs in its results from germ inheritance, and whether when the child receives a taint from both parents it suffers more severely, or in any way differently, from what occurs when it receives it from only one. We enter here upon a most difficult inquiry, and our knowledge of the laws of inheritance are not sufficiently advanced to permit of a categorical answer being given. Nor, indeed, have our facts as to the inheritance of syphilis been as yet collected and compared

with sufficient care. It may prove that future investigations will succeed in establishing more detailed and definite laws, as explanatory of the variety in the clinical phenomena which we witness. On the other hand, it may, perhaps, come about that we shall see that we have already gone farther in this direction than either our present or our future knowledge will warrant. We are met at the very threshold of our inquiry by the fact that we do not yet know the limits of possible variability in the phenomena of syphilis, independently of any appreciable difference in the conditions of its origin. Thus we are constantly in danger of assuming that differences, which we observe in the course and severity of the disease, are due to peculiarities in the mode of acquisition; when in reality they were quite possible under modes which were identical. The more we study the subject the more shall we feel obliged to acknowledge the importance and width of bearing of this fallacy. We must also be exceedingly careful as to giving our confidence to single and isolated narratives, whether they be the results of our own observation or the records of that of other surgeons. There are in respect to syphilis such endless sources of mistake that, however clear the seeming inference may be, it is never safe to trust it unless it has the support of many independent observations. Acting on this rule as to the reception of evidence, I shall, in what is to follow, trust far more to general conclusions from daily experience, than to the apparent indications of individual but isolated cases.

Whilst all admit that a child may inherit syphilis from its mother, there are, possibly, still some who doubt whether it can inherit from the father independently of the mother. The evidence on this point seems to me overwhelming. It is a matter of constant experience that the father of a syphilitic infant is known to have had the disease before marriage,

whilst not a symptom has ever been observed in his wife. It is improbable, in the highest degree, that a large number of married women should acquire syphilis in its primary form, pass through its secondary stages, and yet never know it. Yet this is the supposition which we must adopt, not once nor twice, but as being an every-day occurrence, if we reject the belief that a syphilitic father may beget a syphilitic child, quite independently of any previous infection of its mother. There are, however, many other supporting facts. In these cases it very frequently happens that the taint in the father is wholly latent, that he has for long appeared to be absolutely well, and that he has no trace whatever of sore on his penis by which a primary infection might be effected. Then, again, not only has the disease wholly escaped the observation of the mother, but she appears, on the most minute examination, to be wholly free from symptoms, and in many instances she remains so in after life. Such facts are wholly inconsistent with the supposition that she has passed through syphilis in its ordinary stages as an acquired disease. In nine cases out of ten, acquired syphilis is an affair which its victim cannot either ignore or forget.

It being then taken as established that a child may at the time of conception take syphilis from its father alone, from its mother alone, or from both simultaneously, and that it may also receive it later on from the mother's blood during pregnancy, we have to ask whether the disease presents any differences under these several conditions. The answer to this has already in part been given, for it has been asserted that what has been termed "pregnancy inheritance" is just as severe as conception inheritance. Diday has cited a number of facts in proof of this, and all that I have myself observed is in unison with his conclusions. To avoid tediousness, it may perhaps

be asserted briefly that there is no reason for believing that the inheritance from the mother (germ transmission) produces more serious results than sperm transmission, or that the child who inherits from both parents suffers more severely than he would if one were free. In connection with this assertion, it is to be freely admitted that there are certain facts for which as yet we can find no explanation, and which may possibly lead to some modification of this rule. The cases exceptional to rule to which I refer are those in which children are born with syphilitic lesions actually present, or with traces of intra-uterine disease. We must also, in connection with this point, recall the fact, apparently established, that the two sexes do not suffer exactly in the same ratio, the examples of infantile iritis, of keratitis in adolescent periods, and of syphilitic deafness, being much more common in girls than in boys.

Having just asserted that the several modes of inheritance amount as regards the heir to exactly the same thing, we have next to ask whether the stage which the disease has reached in a parent makes any difference as to that manifested in the offspring. This is best answered by saying, broadly, that there is no evidence in proof that it does so. Some facts which are unexplained undoubtedly exist, but there is enough of positive evidence in proof that children who present precisely similar phenomena may be born at the most various periods of the parental disease, to make us put them for the present aside. Diday and others have collected evidence on this subject. We shall probably be quite safe in making a *tabula rasa* as regards all theories hitherto advanced, in explanation of the different degrees of severity which inherited syphilis displays. These differences are probably not greater than those which we observe in the case of the acquired disease. Chancre syphilis, as is well known,

falls with very different severity of incidence on different individuals. The reasons why it does so are inexplicable, just as are those which apply to the parallel phenomena in small-pox and scarlet fever. It will be wise, therefore, to clear away the old hypotheses and begin the investigation of facts anew.

With the hypotheses which we thus put aside, it may be well to associate a piece of matter-of-fact observation which is probably a mistake. It is generally said, and accepted, that the inheritance of syphilis, when continued through a family of children, shows a tendency to fall off, and decreases in severity in each successive child, until it comes finally to an end. I must myself take some share of responsibility for the perpetuation of this opinion, which I now believe to be an error. It is also strongly stated by Diday. That the eldest child, or elder children (those born nearest to the parental acquisition) are the most likely to inherit it, is unquestionable, and so also is the fact that the younger ones often escape. In admitting this, however, we by no means admit that the disease is apt to occur in a modified form in the younger ones. We shall probably be nearer the truth if we assert that the inheritance of a syphilitic taint is often irregular; that frequently, of several children born under apparently similar conditions, one may receive it and another escape; but that, if it be received, it is always one and the same specific malady. Although it may and does develop with very differing degrees of severity, yet the child who inherits it at all inherits its full risks, and is just as liable as another to its severest manifestations. Much evidence might be adduced to show, that when a succession of children suffer, the youngest may suffer as severely as the eldest. It might also easily be proved that, under such circumstances, the disease may skip one child and appear again in one still younger.

All authorities are agreed that, as a rule, parents who have reached the tertiary stage, although themselves still liable to display symptoms, do not transmit. Now and then transmission under such circumstances does occur, especially in the case of the mother, but the rule is as now stated. It may be expressed in another manner, namely, to the effect that those who have allowed a long period to elapse (say two or more years) are not, as a rule, capable of transmitting. The body of evidence on this point, in the case of fathers, is very large indeed. We see, every day, fathers of families, none of whose children have ever shown a symptom, but who are yet themselves (after, it may be, long periods of latency) destined to suffer from tertiary phenomena. Such facts are far less frequently seen in the case of women; but then we must remember that the proportion of mothers who have in former life suffered from syphilis is far smaller than that of fathers. Making, however, all allowance for this, we may still believe with confidence that a child has much less chance of escape if the mother be diseased than if the disease be confined to the father. In the latter case, sperm transmission is the only mode of conveyance possible; whilst in the case of the mother, should the poison not be conveyed with the germ at the time of conception, there are yet nine months of risk to be run, during which it may pass directly from the blood.

The expressions just used will suggest the hypothesis already insisted on, which is perhaps the best for our use in the attempt to unravel the intricate phenomena of inherited syphilis. It is that the transmission of the disease, as well in inheritance as in acquisition, is always effected by the conveyance from person to person, not of a tendency to disease, but of a particulate virus. This virus is probably as specific and individual as are the seeds of barley or of clover. If

it passes into the sperm or germ, then the foetus is liable to the full development of the disease ; and if it chance that none of its elements do so pass, then the offspring, although born to a tainted parent, escapes free. This virus is, during the early periods of syphilis, existent in great vigour in the parental fluids, and during these transmission is almost certain. It diminishes in power, or probably in quantity, as time passes on (and hence the greater chance of escape of younger children), until finally it wholly disappears or dies out. Its disappearance is, however, by no means coincident with entire restoration to health of the patient, who, although fortunately impotent to transmit, is, as just stated, still liable to suffer.

Before proceeding to sketch the results, to the child, of inherited taint, it is necessary to advert to the curious and unexpected fact that a woman who bears a syphilitic foetus inheriting from its father, although herself remaining free from symptoms, acquires, silently, a state of constitution which protects her from syphilis in the future. No other interpretation can, I think, be given to the facts, upon which is based what is known as Colles' law. The child born of such a mother, if suckled by a wet nurse who has recently had syphilis, will not cause any fresh disease in her, but if by a woman free from taint, the risk is great that a nipple chancre will result. Now the mother of the child, although, so far as appearances have gone, free from syphilis, is, as regards fresh contagion from her child, no longer in any danger. She has thus in some way gained the position of one who had suffered from acquired disease. We know nothing as to the relation which a mother so protected would assume towards other children which she might bear. It is obviously possible that if, in a second marriage, she should bear a child to a healthy father, such child might inherit from her, but no facts have as yet proved it. It is also

possible that, in continuing to bear children to a first husband, her taint, acquired through the fœtus, may act in reference to later conceptions, and may thus prolong the risk to their family, after the father has ceased to transmit.

The evolution of hereditary syphilis.—The usual course when syphilis is inherited is for the fœtus to remain quite healthy during its intra-uterine life. At the time of birth it almost invariably has a clear skin, and appears to be in perfect health. At the end of three weeks or a month, symptoms of coryza, as shown by what is named “snuffles,” usually begin, and are quickly followed by some eruption on the skin, attended by wasting and fretfulness. During the second, third, and fourth months, unless cured by treatment, all the symptoms will be at their height. Excepting in the addition of “snuffles,” these secondary symptoms are much the same as those observed in the acquired disease. The precise type of the skin eruption may vary in the same way; may be papular, scaly, pustular, or bullous. Polymorphism is often noticed, and most of the various phenomena which are seen in constitutional syphilis in its early stage, such as loss of hair, iritis, condylomata, and rheumatoid pains are also apt to occur. All these secondary symptoms are symmetrical in arrangement and transitory in duration, just as they are in the acquired disease. If the child survive, whether treated or not, by the end of a year all the symptoms will probably have disappeared. The influence of mercury as a specific is just as definite as in the acquired disease. All the symptoms, as if under the influence of a spell, vanish when it is used. Certain peculiarities are stamped upon all the symptoms, however, which are probably due to the very tender age of the patient, and the incomplete development of its tissues. Thus the general health suffers much more than in the acquired form, and death, an

event almost unknown in the latter, is a not unfrequent consequence. Periostitis of a definite character occurs in connection with the rheumatoid pains, and, in the case of the epiphyses of long bones, may result in abscess, whilst in the case of the skull bones it often causes simultaneous thinning in some parts and deposit of new bone in others.

In consequence of the fatness of young infants, the eruptions are prone to assume the form of intertrigo; and, owing to the irritation of the buttocks and groins by urine and fæces, all syphilitic eruptions are very prone to affect these parts severely. The diagnostic recognition of secondary syphilis in infants is usually easy, but in a certain proportion of cases it may call for the utmost care and skill in observation. The character of the eruption, its colour (like the lean of ham), its location and symmetry of arrangement, its coincidence with snuffles, wasting, and withered aspect generally, make up a picture which it is often impossible to mistake. The very widest allowance for variations in severity must, however, be allowed for, and common eczema and other infantile eruptions often closely simulate those of syphilis. It is not uncommon for the *rôle* to be exceedingly imperfect; thus there may be snuffles and mucous patches only, the general rash being quite omitted, or there may be no snuffles and the rash may be ill-marked. Instead of the "old-mannish aspect" which is constantly mentioned, the child may continue throughout in apparently excellent health. Lastly, it is certain that an infant may pass through the secondary stage of inherited syphilis without ever presenting any symptoms which attract the attention of its nurse. Such cases are common, and they have their exact parallels in the case of the acquired disease. Those who have shown no symptoms in infancy may yet suffer in later life. It is clearly to be understood, however, that when this

happens to adolescents they suffer from a class of symptoms wholly different from those of infancy. It is not that the secondary stage has been delayed, but simply that it has been passed through without ostensible disturbance. If secondary symptoms of the kind described are to occur at all, they will show themselves in infancy, and in a vast majority of cases within the first three months of life. This is a very important fact. Many syphilitic infants perish during the outbreak of the secondary stage, and were it not for the specific influence of mercury, probably many more would do so.

If a syphilitic child survive the first outbreak, in the course of from six months to a year the symptoms common to this stage (the rash, snuffles, mucous patches, etc.) will wholly disappear, and there will follow a period of some years during which no active symptoms occur. After this period of latency there will in many cases come a group of very peculiar affections. Amongst these we must mention chiefly inflammations of certain parts of the sense-organs, the eye and ear. The affection of the ear is attended by noises, etc., but usually neither by otorrhœa nor by pain. It affects both ears, and may induce almost total deafness in the course of two months. Many cases in the early stage recover, but if once the deafness is complete it appears to be incurable. This affection rarely occurs before puberty, and may be delayed till the twentieth year. About the same period of life, but with wider limits still, since it may occur yet earlier or much later, there is a remarkable liability to a very peculiar inflammation of the cornea. Interstitial keratitis, in its typical form, is always a consequence of syphilis, and it is in itself sufficient for the diagnosis. It must, however, be carefully diagnosed. It usually begins by cloudiness of the substance of the cornea, with ciliary congestion and

irritability. The clouds increase and coalesce until the whole cornea looks like ground glass. The affection begins in one eye, but in the course of a few weeks attacks the other also. It is always, in the end, symmetrical, although in rare cases the interval between the attacks in the two eyes may extend to several years. When at its height, interstitial keratitis may for a few weeks almost entirely abolish sight ; but one of the most remarkable features in its clinical history is its invariable tendency to recovery. In the end the cornea usually clears completely.

At the same time as the keratitis, the patient often suffers from chronic synovitis of one or more of the large joints. The knees are most frequently affected, and there may be free effusion lasting for some weeks, but not often attended by much pain. Almost invariably the effusion disappears, and the joint is perfectly restored. These joint affections may occur either before or after the keratitis, and sometimes to those who never suffer from the latter.

Periosteal affections of the long bones are at this stage not uncommon, and sometimes very severe. They may occur in any part of the skeleton, and often produce numerous and large nodes. If near to joints, these nodes may produce much crippling of movement. If situate on the shaft, they may produce an appearance of curving, which, in former times, used to be mistaken for rickets. Overgrowth of the bone in length as well as thickness is an almost constant result of this form of periostitis, since it often persists for years. This overgrowth, if one tibia only be affected, may produce an increase of length in relation to the other of an inch or inch and a half, and constitutes, with the bending, one form of the malady known as osteitis deformans. Sometimes almost all the long bones in the body are simultaneously affected by these ossifying nodes. The skull, however, at this stage of

the malady, but rarely suffers. Occasionally suppuration attends the periostitis, and a surface of diseased bone, roughened and much thickened, is exposed. The condition produced may usually be diagnosed from other forms of suppurative periostitis with necrosis, by the circumstances that the exposed bone is not enclosed by any shell of new bone, and that it is extremely slow to separate, often remaining visible, but firmly fixed, for a year or more. The periosteum and cellular tissue overlying it are usually destroyed.

At the stage of the disease of which we are speaking, nothing is less common than for any special affection of the skin to occur. Almost the only exception which can happen is a form of rapidly destructive lupus. No scaly or papular eruptions, and nothing in the least resembling common lupus, or the serpiginous ulcerations so common in the acquired disease, are, with the very rarest exceptions, observed. Nor are any forms of disease of the mucous surfaces or of the tongue or the palate at all frequently seen. It may be asserted also that affections of the viscera are very exceptional, and diseases of the nervous system scarcely less so. A few cases of ophthalmoplegia, and a few of epilepsy, apparently in connection with inherited taint, are on record, and a few also in which the grey matter of the hemispheres appeared to suffer, and a state approaching idiocy was the result; but most observers agree that they are very infrequent.

The subject of such taint having passed through the attack of keratitis, attended, it may be, by periostitis or loss of hearing, usually afterwards regains fair health, and continues through the rest of his life free from symptoms. No diseases likely to shorten life have been associated with the diathesis; above all, we may assert that there is no special proneness to diseases of the scrofulous or tuberculous class. Year by year usually the physiognomical and other characters of the

diathesis become less and less obvious, and in advanced life it may be very difficult to recognise it.

No trustworthy evidence in support of the suspicion that the subjects of inherited taint can in turn transmit it to their children at present exists. Most of the facts recorded have been published by myself. It is perfectly certain that those who have suffered very severely by inheritance may become the parents of children who appear to be in every respect healthy. There is neither evidence nor probability in support of the conjecture that syphilis is, in the third or fourth generation, the cause of any chronic diseases of the skin or of any form of scrofula.

Intra-uterine syphilis: exceptions to rule.

—Such being the general picture of the course and final results of inherited syphilis, it remains to notice certain facts which are more or less exceptional to what has been said. Although it is true that for the most part the taint does not appear to affect the infant until some time after it has commenced its independent existence, yet there are numerous instances in which it causes intra-uterine death. Thus, abortions and miscarriages at various periods of pregnancy are common in syphilitic mothers. It is quite possible, however, that the influence of syphilis in this direction has been exaggerated. It is also possible that the cause of what happens to the fœtus is, in such cases, due rather to disease in the mother, and perhaps of the placenta, than to the breeding of the syphilitic virus in the fluids of the fœtus itself. If this be not so, it is exceedingly difficult to explain why the majority of syphilitic infants should be born plump and well-nourished, and remain for a month or so without symptoms, whilst others, on the contrary, perish at, it may be, an early period of intra-uterine life. Enough of pathological evidence has, however, been recorded to compel us to admit that the fœtus

may itself suffer from syphilis, and may exhibit lesions of the viscera, bones, or skin which conclusively denote it. Such lesions are, however, rare. It is a most noteworthy fact that if syphilis affects the fœtus, it almost invariably causes its death, for nothing is less common than for an infant to be born alive with extant signs of taint. Three weeks or a month almost invariably intervene before the eruption, snuffles, etc., appear. A very perplexing exception to this occurs in the case of what is known as infantile pemphigus. In this disease the eruption may appear, in an apparently healthy child, within a day or two of birth, and the case may end in death within a week. These cases need further investigation, and it is hopeless, in our present state of knowledge, to attempt to explain them.

Diagnosis.—It will be convenient to treat of diagnosis under different heads according to the age attained by the infected child.

A. In the fœtus and at the time of birth.

—It is often far too hastily assumed that if a dead fœtus presents a peeling skin, and is shrivelled, it has probably died from syphilis. Such conditions are common whenever death has occurred long before expulsion. So also, as has been already hinted, the belief that miscarriages imply syphilis is held probably far more widely than facts warrant. Miscarriages are common from many other causes; and, conversely, it is quite certain that many mothers, suffering severely from syphilis, carry their infants easily to full term, and produce them in a viable condition. The recognition of syphilis in a dead and possibly decomposing fœtus is a matter of great difficulty and uncertainty. As to the existence of signs of syphilis in living infants born at full time, we must receive the published testimony of the older surgeons with caution. Not having the importance of this special point in mind,

they often assumed, on seeing a syphilitic infant, that it had been born with the symptoms. Obstetricians would probably give evidence of a different kind. Thus, whilst Diday, who had enjoyed very extensive opportunities of special observation, had never once seen signs of syphilis present at birth, we find Sir Astley Cooper stating that he had seen several children born with copper-coloured eruptions on the palms, soles, and buttocks. Probably all that he meant is that the infants were young when first seen by him. I have never myself seen an infant born with a syphilitic eruption, or one in whom the evidence was clear that such an eruption was present at birth. In spite, however, of some scepticism, the facts must be accepted that such infants are occasionally seen. Rodelet, Doublet, Gilbert, Guerard, and Landman are all quoted by Diday as having published single cases in which infants were born with characteristic eruptions. Visceral disease, as of liver, spleen, thymus gland, etc., has also been encountered under conditions implying that the poison had been actively at work in the foetal organism during intra-uterine life.

B. Diagnosis during early infancy.—In many cases the recognition of inherited syphilis at the age of six weeks or two months is exceedingly easy. The stuffed and expanded nose, the snuffles, the pallor, the patches of peeling erythema about the face, neck, and nates, constitute a picture which can scarcely be mistaken, but which is often yet heightened by such symptoms as sores at the angles of the mouth and anus, a peculiar odour, and periosteal tenderness of various bones. In many cases, however, one or several of these symptoms may be omitted or ill-marked, and in some they are all of them absent. In certain cases, therefore, it is to be admitted that the diagnosis may become very difficult or even impossible. In such cases help must be sought from the parents' history,

and from facts, if there are any, as to previous births. In doubtful cases each one of the symptoms must be scrutinised with suspicion. Infants who are not syphilitic often have a certain kind of snuffles, and common eczema of the nates may assume exactly the same tint as that which is specific. Sores, in connection with diarrhœa, may occur at the anus, which may be mistaken for condylomata. It is seldom safe to trust to any one symptom unless it is very well characterised. A typical condyloma is conclusive, and so also are certain types of skin eruption and certain forms of bone disease.

For a knowledge of the conditions of periostitis which denote syphilis in the infant, we are indebted to very recent observations. When M. Diday, in 1856, wrote his work on this disease, he stated that the records of medicine comprised scarcely any instances of bone disease in connection with inherited taint. At the date of my own work (1863) I had fully recognised the frequency of nodes in children, and the occasional occurrence of periostitis in infants. It was reserved, however, for Dr. Taylor, of New York, Dr. Wegner, of Berlin, and Professor Parrot, of Paris, to show that bone lesions are really very frequent in the early periods. They had been overlooked because they were usually, like the other phenomena of this stage, transitory, and because they but rarely led to suppuration. The careful re-investigation, in this country, by Drs. Barlow and Lees, of the facts expounded by Parrot, have confirmed the correctness of these in the main, whilst they have corrected certain errors of inference. The chief difficulty consists in the similarity which some of the infantile bone lesions of syphilis present to those of rickets. As a rule, however, the syphilitic lesions occur at an earlier age, are attended by more definite signs of inflammation, and are not accompanied by the other phenomena of

rickets, such as profuse sweating of the head, and buttons on the costal cartilages. Congenital syphilis and rickets very often co-exist ; but there is no reason for believing that the one is in any sense the cause of the other. For purposes of diagnosis of syphilis it may be sufficient to state that, in infants suffering from it, it is very common to find certain areas in the skull tender and slightly swollen, and that the regions of the epiphyses of long bones often suffer in a like manner. These lesions are often multiple, and may make all movements of the limbs so painful that paralysis may be suspected. Careful examination will always detect tender swellings of periosteum near to the junctions of the epiphyses, and sometimes on the shafts. These swellings are often of considerable size, much larger, and, at the same time, more inflamed than those of rickets. Suppuration is not common, but it does occasionally occur. If this form of multiple periostitis is seen within six months of birth, it is almost certainly due to syphilis.

The state of nutrition is no safe guide in cases of doubtful diagnosis. In those cases which are self-evident it is often very characteristic. The infant is puny, emaciated, and shrivelled, and has features which resemble those of an old man. It is not uncommon, however, as already stated, for syphilitic infants to remain throughout plump and healthy-looking.

In doubtful cases reference may be made to the state of the palms and soles, which often show peeling patches, and to that of the nails, which sometimes become malformed and look as if they had been pinched laterally.

C. On diagnosis at periods of life subsequent to infancy.—After the infantile phenomena have passed away (roughly speaking, after the end of the first year) the recognition of the subjects of inherited syphilis will depend: (1) upon certain

structural peculiarities which have been left as the results of the secondary lesions; and (2) upon the occurrence of new local inflammations which are characteristic of the disease. To take the latter first, it may be broadly stated that if a child or young person, without either ear-ache or otorrhœa, becomes quickly and completely deaf, the patient is almost certainly syphilitic. In like manner the same diagnosis becomes almost certain if the patient shows well-characterised and symmetrical interstitial keratitis, or erosive lupus, or ulceration of the palate. Respecting each of these lesions, the exceptions to the statement that they are due to inherited taint are very few indeed. Such is also the clinical fact respecting multiple chronic nodes of long bones, and disseminate choroiditis.

If during infancy, as is quite possible, the child has not suffered from syphilitic inflammations of any tissues, then I believe that it is probable that nothing whatever to denote the disease may be present in the physiognomy. This probably is the condition of a very large number of those who yet have inherited a taint quite sufficient to give liability to more remote affections. The proof of this statement may not unfrequently be met with in cases in which one child in a family shows traces, which are wholly absent in others, whilst all alike suffer later on. If, however, a tainted child have in infancy passed through the maladies so frequently witnessed at that period, then in all probability the physiognomy will have received an impress which is seldom wholly effaced in later life. The skull may be peculiar in form, the texture of the skin may be modified, scars may be left about the mouth and other parts of the face, and, above all in value and in permanence, the teeth may be malformed on a very peculiar pattern. One or more of these conditions may be present alone,

or the whole group may exist together. If there have been no infantile dermatitis of the face, there will be no scars or other alteration of its skin ; if no periostitis of the skull, no frontal protuberance, and if no stomatitis, then no malformation of the teeth. The physiognomy of syphilis in the infantile period had for long been well known, the withered aspect and old-man like features, etc. ; but I believe that I was myself the first to describe that of the later stage of the disease, and to distinguish it from that of so-called scrofula. Not much has, I think, been added to my original description, but as regards the explanation of some of the phenomena valuable light has been afforded. I was inclined to attribute the peculiar shape of the skull bones to a temporary tendency to hydrocephalus, whereas the able and very extensive researches of M. Parrot have made it certain that they are, at any rate chiefly, due to periostitis and softening of the bones themselves. In like manner the researches of Mr. Moon, Mr. Coleman, Mr. Tomes, and Mr. Cartwright, jun., have helped us to see how the very peculiar dental malformations are brought about. In the main, however, my descriptions remain without any material additions. I will say a few words as to each feature of the physiognomy severally. First, however, let it be remarked that the face of an adolescent who has in infancy suffered from syphilis may often be recognised at a glance. No analysis of details is needed. The square forehead, with prominent frontal eminences like budding horns, the sunken nose, the soft, pale, earthy-tinted skin, and the scars about the angles of the mouth, make it quite needless that their subject should be asked to show his teeth. In many who come under observation after their attack of keratitis has occurred, very conspicuous peculiarities have been left behind in the eyes. The irides look steel-grey, and although the corneæ have probably almost wholly

recovered, they have not the brilliancy of perfect health. There is also often a slight tendency to frowning, consequent on prolonged intolerance of light. Thus the physiognomy becomes much more marked after the attack of keratitis than it was before.

The form of skull.—There is usually exaggerated prominence of the frontal eminences, and between them and the eyebrow is a shallow furrow or depression. Posteriorly on the parietal bones similar eminences, but more widely spread and lower, exist, constituting the natiform skull of Parrot. As a whole the skull is somewhat larger than normal. All the peculiarities are chiefly due to chronic infantile periostitis, with softening, but a tendency to hydrocephalus probably takes some share. All of them tend to diminish in conspicuousness as their subject advances in life. With these peculiarities of skull may also be noticed the very common flattening of the bridge of the nose, consequent upon internal and external periostitis of the nasal bones.

The skin.—The integument of the whole face is usually of earthy pallor, it is thin, soft, and wanting in resiliency; often there are little pitted scars on various parts, and especially around the mouth and at its angles radiating linear scars are to be noticed.

The teeth.—The malformations of the teeth due to syphilis are very frequently mixed up with those which are due to the stomatitis caused by mercurial treatment. Hence great arise difficulties in their correct recognition. The more closely we keep to the peculiarities displayed by the upper central incisors, the less will be our risk of error. All the other teeth are liable to lead us astray. If the upper central incisors are dwarfed, too short and too narrow, and if they display a single central cleft in their free edge, then the diagnosis of syphilis is almost certain. If the cleft is present, and the dwarfing absent, or if the peculiar

form of dwarfing be present without any conspicuous cleft, the diagnosis may still be made with much confidence. The illustrations given in Plate VI. will help much to the recognition of what I mean. Usually the conditions are symmetrical, but now and then they are notably one-sided. It is remarkable that the lateral incisors rarely show any peculiarity, but they also are sometimes dwarfed. The peculiarities in other teeth (in the lower incisors, the canines, and the molars) are, so far as I know, of a kind which it is impossible to distinguish from those due to stomatitis. It would be well if the term "pegged" and "peg-shaped," or, as, some absurdly write it, "peg-top" teeth, were disused. I am sure that they often mislead. In saying this I by no means wish to imply my belief that the upper central incisors alone suffer in inherited syphilis. On the contrary, the lower incisors not very infrequently show a dwarfed and foliated condition, which are, I believe, due to syphilis, and not to mercury; but these conditions are not to be trusted in the absence of peculiarities in the upper central incisors, whilst if the latter be present they are superfluous. The conditions due to stomatitis (usually mercurial) are defects in development of enamel, and are seen as transverse ridges crossing all the incisors, but especially in the state of the crown of the first molars. They are probably due to inflammation of the tooth pulp at some period during infancy, and are wholly distinct from the arrests of development due to syphilis. The two, however, for obvious reasons, often co-exist. Both the syphilitic and the mercurial abnormalities of the teeth occur only in the second set, since both are due to influences brought to bear upon the dental sacs at a time when the crowns of the temporary teeth are calcified and beyond risk of damage. Defects in the first set of teeth are, for the most part, to be referred to influences existing during intra-uterine life.

Thus it is very possible that the proneness to premature decay, often observed in the milk-teeth of syphilitic infants, may be due to mercury given to the mother during her pregnancy.

The treatment of infantile syphilis.—The inunction of mercury is by far the easiest and most efficient. If that remedy be given by the mouth it is very apt to purge; and, besides, it is a troublesome method, and often attended by uncertainty as to whether the child gets the full dose. Inunction is attended by but little inconvenience, and is always effectual. Ten grains of the strong mercurial ointment may be rubbed into the palms and soles every morning and night, and the quantity and frequency may be varied according to the effect produced. There may occur circumstances under which the surgeon may desire to avoid this plan in order to escape exciting suspicion, and under such the internal use of the bichloride or of grey powder may be resorted to in small but frequent doses. It is marvellous how rapidly under a mild inunction all the symptoms will disappear. I am not in the habit of continuing the treatment much longer than the persistence of the symptoms. The secondary symptoms of the inherited form are far less prone to relapse than are those of the acquired disease, and it is very uncertain whether the prolonged use of mercury does much in preventing those of the later group. On the other hand, I regard it as certain that mercury employed in infancy is attended by much danger to the development of the child's permanent teeth. For this reason I am always wishful to use as little as may be, and not to prolong the course unnecessarily. With this motive I have often tried the treatment by iodide of potassium to the exclusion of mercury. This drug is, however, not unfrequently depressing to infants, sometimes really dangerous, and it is uncertain, and often inefficient as

regards the syphilis. Mercury, on the contrary, almost always does the general health good.

If there are local symptoms, such as condylomata and ulcerated skin eruptions, these must be treated by the use of mercurial ointments, or powders, or by the application occasionally of some caustic, such as the acid nitrate of mercury.

The prognosis of infantile syphilis.—In hospital practice, and amongst the poor, the mortality from syphilis in infants is large. This, however, is to be explained by the disadvantageous conditions as regards feeding and treatment under which the infants are placed, rather than by the severity of the disease itself. Amongst the richer classes the malady is, I think, rarely fatal. I know many families in which a succession of children have suffered, and all have not only survived, but have gained a condition of health apparently very good. Should death occur, it usually happens soon after birth, and before treatment has had time to exert its influence. If the rare condition known as infantile pemphigus shows itself, it is usually in the first week, and it is almost invariably followed by death. Excepting in connection with this malady, I do not recollect to have lost in private practice, during the last few years, more than one syphilitic infant. In this excepted case the death was caused by arterial hæmorrhage from the nostril, probably due to phagedænic ulceration. It is possible, of course, that some may have died of whom I had lost sight.

If an infantile eruption, due to inherited syphilis, have once disappeared under treatment it but seldom, in my experience, shows any tendency to recur. The relapses so frequently seen in adults who have acquired the disease find no place in infants, nor do we meet with the troublesome affections of the mucous membranes, sore throat, sores on the tongue,

etc., which so often happen in them. Exceptional cases do occur, but, as a rule, a child who may have suffered very severely during the first six months of life, is quite cured before it is a year old, and remains for five or ten years absolutely free from symptoms. At the end of a period of years, varying from four to thirty, we encounter liability to affections of the eye and ear, to chronic periostitis, visceral gummata, and to phagedænic forms of lupus. These having in turn been cured, the patient then usually remains through life without any further evidences of taint. He may, however, have been left quite deaf, and his eyes may have been damaged by keratitis, choroiditis, or optic neuritis. In a small minority of cases obscure affections of the nervous system, such as ophthalmoplegia externa, epilepsy, or partial idiocy, may ensue, but they are very rare. So far as my knowledge extends, with the exception of certain forms of lupus, no skin diseases which occur after the infantile period are to be attributed to inherited syphilis. It is a most remarkable feature of the periostitis, keratitis, and other conditions so frequently seen at adolescent periods, that they, like the infantile symptoms, clear completely off, and very rarely relapse, and that the remote affections so frequently fatal in the acquired disease are almost unknown in that which is inherited.

Can syphilis be transmitted beyond the first generation?—I have followed up a certain number of cases (not a very large one) in which those who were known to have themselves suffered severely from inherited syphilis, married, and became parents. I have repeatedly seen healthy and very well-developed children produced under such circumstances, and with one single exception I have never known a child born under such conditions exhibit anything in the least suspicious. In one instance a

remarkably handsome girl (now grown up), and who in childhood was wholly free from symptoms, is the daughter of a dwarf woman who is quite deaf, almost blind, and whose features are much malformed by inherited disease. In some of the cases to which I refer the father was the subject of the inherited disease, and in some the mother. I have not known any instances in which both parents had suffered, nor do I know of any cases recorded, or statements of fact made on this point by other writers than myself. It is clear that the inference from what I have said is, that inherited syphilis cannot pass to the third generation. I have to deal, however, with the one exception. It was this. A young married woman came to me at Moorfields Hospital with keratitis. She was obviously the subject of inherited disease. I asked if she had children, and was told that she was nursing her first. This child was brought for inspection, and proved to be covered by a syphilitic eruption. There remained, however, the fallacy that the father of the child said that he had had syphilis a year or two before he married; whether he really had, remained, after careful investigation, open to doubt, but I am inclined to believe that he had, and that this, and not the mother's taint, was the cause of the disease in his child. If, then, we assert that there is neither proof nor reasonable probability that syphilis can descend to the third generation, what are we to say as to possible transmission still more remotely? For my own part I wholly disbelieve in it. The suggestion that such maladies as scrofula, common lupus, and some other chronic diseases of the skin have their root in hereditary syphilis is, I believe, a baseless and improbable supposition. We can now identify, with ease, in adult life, the subjects of inherited taint, and our experience in reference to them is

very large. Hundreds of cases of interstitial keratitis and notched teeth come under observation every year at our large ophthalmic hospitals. We know for certain that they do not show any exceptional tendency to scrofula or lupus. Further than this, we know that each individual thus recognised usually represents a family of several brothers and sisters, and that neither amongst these are the skin diseases mentioned prone to occur. To take the converse side of the argument, we know also that of those who show typical lupus and scrofula there is in a large majority the strongest possible negative history as regards inherited syphilis. There are certain forms of lupus which are from beginning to end syphilitic, and there are some other diseases which, to the uninitiated, look like "scrofula," but which are really due to inherited syphilis. In these cases, however, it is simply a question of correct diagnosis, and the diseases are really wholly distinct from the more common maladies to which they show resemblance.

Colles' law.—A word must be said in this place on a remarkable observation which was first made by Mr. Abraham Colles, of Dublin. He noticed that whilst wet-nurses not unfrequently contract chancres on the nipple from nursing syphilitic infants, such accidents never happen to the infants' mothers. Since Colles' day no exceptions to his law have, I think, been put on record which are worthy of trust. Every one has seen chancres on the nipples of wet-nurses, and no one on those of the mothers. When we remember that the number of mothers who expose themselves to this risk is infinitely larger than that of wet-nurses, we shall see that the bearing of these facts is very strong indeed. Thus I think we may hold it as probable in the very highest degree that the mother of a syphilitic infant is *ipso facto* protected from the contagion of syphilis. at any rate so far as her own

child is concerned. Nor is it in the least probable, that whilst unsusceptible of contagion from the lips of her own child, she remains liable to suffer from any other source. It seems most likely that women who bear children tainted from the sperm do during the pregnancy obtain syphilis in a form as protective as any other. Yet, as I have remarked in the preceding paragraphs, it is exceptional for such mothers to suffer from ostensible syphilis. The taint must be supposed to remain latent. Many facts seem to make it probable, that although usually incapable of evoking the secondary phenomena, it may yet at more or less remote periods cause those of the tertiary kind. Our opinions on these points are, however, as yet far from being satisfactorily established.

Part II.

CLINICAL COMMENTARIES AND ILLUSTRATIVE CASES.

PREFATORY NOTE.

I HAVE endeavoured, in the preceding pages, to give a general sketch of syphilis in its various stages and different forms. I have abstained almost wholly from the production of cases, and have avoided the discussion of moot points and exceptional facts. I purpose now to go over the same ground again, but in quite a different manner. The standpoint will here be that of the clinical observer and practitioner, and I shall endeavour, by the citation of cases, and occasionally of statistics, to illustrate the various assertions which have been made as to the laws under which the different affections due to syphilis are developed. In this way I shall hope to fill many gaps which have been left in the previous concise narrative, and also to bring into stronger prominence the more important facts as regards diagnosis, treatment, and prognosis. In doing this it will be inconvenient to attempt much in the way of arrangement. Many of the case-narratives will bear at the same time on questions relating not only to the different stages of the disease, but to both its acquired and inherited forms. I shall, however, group my facts so far as they admit of it, and shall hope to remedy defects on this score by a full index at the end of the volume.

CHAPTER I.

COMMENTARIES ON SUBJECTS RELATING TO PRIMARY
CONTAGION.**Commentary I.**

On the rarity of the occurrence of syphilitic contagion in relation to the frequency of exposure to risk of it.

I may suitably make use of several of the narratives to be given subsequently to draw attention to the many facts which indicate that the contagion of syphilis is a very uncertain matter. In one instance an experimenter, who used material equally likely to be efficient on all occasions, failed three times, and succeeded only on the fourth. How very frequent, also, must be the exposure of the surgeon's finger in midwifery practice as compared with the rarity of contagion. How seldom do we see chancres on the lips from kissing, yet how very common must be the risk. How constantly do surgeons, accustomed to the daily examination of primary sores, run the risk of infecting scratches on their fingers, and how rarely do they suffer. How abundant are the risks to nurses and others who have to do with syphilitic infants, and how seldom are ill results observed. Lastly, of sexual contagion, we may, perhaps, reasonably surmise that infection does not take place once in a hundred times that exposure of the most dangerous kind is incurred. These facts point to the conclusion that the virus is not always present in an active form in the secretions of those who suffer from the disease, and also that it is probably easily destroyed or removed by washing and other measures; and further, that with the exception of parts where the epithelium is very delicate, it requires for its implantation a definite breach of surface. So rarely do syphilitic infants, when put to wet-nurse communicate

the disease, that some surgeons to lying-in hospitals, with very large opportunities for observation, have expressed disbelief as to its possibility; although, as I need scarcely remark, the facts in proof of its occurrence are numerous and conclusive.

Commentary II.

Is an abrasion of the surface necessary to contagion?

Although undoubtedly the existence of a sore, or the occurrence of laceration, very much facilitate the introduction of the virus, yet probably neither condition is essential, nor perhaps even frequent. There is nothing improbable in the suggestion that the virus can easily penetrate the unbroken, but soft, moist, and very delicate mucous structures of the parts in which chancres are usually seen. On the skin itself it may be more difficult, and the intervention of a wound or sore may be almost essential. Beneath the prepuce in the male, and on the vulva of the female, imbibition must be supposed to be the more common event. On these parts it is probably sufficient that the virus finds protection in a mucous fold or a gland orifice. The evidence of a very large number of patients is to the effect that no abrasion whatever was noticed at the time of infection. In not a few cases very careful inspections have been made, accompanied by ablutions, and repeated through many days, and yet no sore has been observed. It is obvious, then, that it is, for practical purposes, useless to contend that an abrasion is essential, since all must admit that the breach of surface is often so small as to escape the most careful examination. In many of the cases of surgeons who suffer from midwifery chancres, there is no history of previous breach of surface, the virus appearing to have simply found lodgment under the nail, or in a fold at the nail edge.

Commentary III.*On the most common positions of chancres.*

In the male, the most frequent position for chancres is the roll of the prepuce (reverted), just behind the corona ("the furrow"). In this position, also, chancres assume their most characteristic features. Here induration is greatest, and is most easily estimated. The gristly, half-circular disc stands up conspicuously when the prepuce is reverted, and assumes the well-known "collar" form. Often the induration extends across the furrow, and implicates the corona itself, but in the substance of the glans induration is not so definite, whilst inflammation is common. Chancres of the glans itself often become phagedænic. Of other regions, special mention should be made of the meatus, the frænum, and the free border of the prepuce. When the meatus is affected, which is not uncommon, the induration usually surrounds it in a ring. It does not often extend far into the substance of the glans. At the frænum inflammation is very apt to occur, and induration is often absent; implication of the glands in the groin is, I think, more certain to occur with frænal chancres than any others. Chancres of the free margin of the prepuce are often multiple and often mixed. Well-characterised induration is not often present, and not rarely it is very difficult to judge of the real character of the sore.

On the skin of the penis sores do not differ from those which we observe on other parts of the body's surface, excepting, perhaps, that it is here almost exclusively that we notice what has been named the "parchment chancre." The peculiarities of this sore are that its area of induration is large, and its thickness very small, whilst there is little or no inflammation. It is a condition which is frequently seen in a stage of half cure.

In the female, chancres are usually seen on the

PLATE II.

ERRATIC CHANCRES ON THE FINGERS AND ON THE EYELID.

Fig. 1.—The end of the finger is greatly enlarged by an enormous chancre which has developed under the side of the nail. Induration was tolerably well marked in this sore.

Fig. 2.—A well-marked circular, indurated sore, on the pulp of a finger of a dentist. It had been produced by a scratch on a patient's tooth.

Figs. 3 and 4 show the finger of an accoucheur, with an interval of three or four months. In the first, the nail is loosened by chanceroous inflammation, which involves chiefly the left side. It is a good example of what is commonly seen in chancre of the nail. In Fig. 4 a repair has taken place, but the nail is much damaged.

Fig. 5 is an exact representation of the state of things in which the upper eyelid of a young girl was the site of an indurated chancre; the glands in front of the ear were enlarged. It will be seen that there is nothing in the least characteristic in the aspect of the sore.



Fig. 1.



Fig. 2.

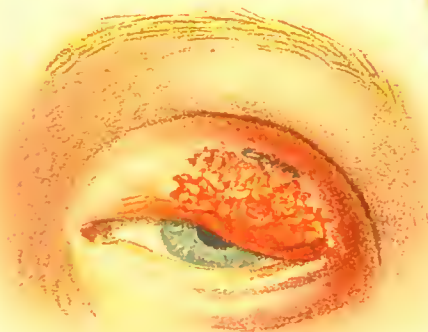


Fig. 5.



Fig. 3.



Fig. 4.

labia or nymphæ, less frequently on the fourchette or clitoris. They are seldom or never met with in the vagina itself, and only very rarely on the os uteri. The exemption of the vaginal walls may be explained by the thickness of the epithelium, but more plausibly by the infrequency of gland orifices.

Multiplicity of the infecting chancre is more frequent in women than in men, probably because the labia come into contact, and easily infect each other. This mode of duplicate infection can, of course, only occur soon after contagion. Multiplicity is, however, not very uncommon in men. A wax model in the Hôpital St. Louis museum shows, I think, five chancres, and as many as fifteen are on record as having been observed at once.

The terms "accessory" or "satellite indurations" have been applied to masses, which in rare cases form near to the original sore, but at a date considerably subsequent to its development.

Commentary IV.

On the natural course of the true chancre.

So constant, now, is the use of mercury that we but seldom have opportunities for observing the undisturbed course of a chancre through any long period. The persistence of induration would appear to be, under such conditions, variable within very wide limits. It may vanish in a few days or a few weeks, or it may persist for a year or more. The influence of mercury is invariably very marked, and usually very speedy. If suitable doses be given, in a few days the sore loses its extreme hardness, and in the course of a week or two it will have begun very definitely to melt away. But if the mercury be stopped the sore will indurate again, and perhaps as characteristically as at first.

The tendency to recurrence of induration, just noticed, is sometimes observed under very peculiar

conditions. At periods of a year, or two years, after the original sore has entirely disappeared, and without any fresh exposure, in the exact site of the first one, fresh hardening may take place. This may occur repeatedly to the same person. There is seldom any hardening of the lymphatic glands; the recurred chancres do not usually last long, and they are not followed by any constitutional symptoms.

On the other hand, it cannot be doubted that, wholly without help from mercury, indurated sores do, in some cases, disappear very quickly indeed. A recognition of this fact is essential to the correct interpretation of many histories given us by patients. A week or even a few days may, I feel assured, suffice for the disappearance of all that is characteristic in an infectious sore, and that quite independently of treatment.

Commentary V.

Can syphilis be cut short by destruction of the initial lesion, and, if so, at what stage?

Ricord at one time taught that cauterisation, if done freely within five days of the contagion, might be trusted to prevent the formation of a chancre and the development of syphilis. Subsequently, however, he was obliged to modify this opinion, and to believe that such treatment was often useless. It is obvious that we have to consider, not alone the date at which the destruction is effected, but the precise details of the method. That which one surgeon may regard as an efficient cauterisation may, to another, appear quite inadequate. If nitric acid does not act deeply enough, it is yet possible that chloride of zinc, or the actual cautery, or the knife, might do so. These are matters upon which experience must decide. I should

* See papers by the author on "Relapsing Chancre," London Hospital Reports, 1860, and *British Medical Journal*, 1885. See also subsequent commentaries.

certainly deem it a neglect of duty not to freely cauterise any venereal sore which a patient presented for my treatment within five days of exposure. I have cauterised many such, and in but very few instances have known syphilis follow. At the same time, it is to be freely admitted that the local absorption of the virus probably takes place much more rapidly than we should *a priori* have been inclined to suspect. Ricord's later experience with caustic proves this, and so does the well-known fact recorded by Berkeley Hill. Mr. Hill cauterised a torn frænum with fuming nitric acid within twelve hours of the exposure. An eschar formed and separated, and the sore healed. A month later, however, it indurated, and syphilis followed. In criticism on this it may be alleged that the frænum is a part on which it is especially difficult to make sure of efficient cauterisation, and that also absorption is in it very active. It scarcely follows that a similar cauterisation at some other part of the prepuce would have been followed by similar disappointment. Nor, if nitric acid is untrustworthy, does it follow that the free application of the actual cautery would be equally so.

Having regard to the very serious character of such a malady as syphilis, I certainly think that surgeons will do wisely, whenever the opportunity offers, to destroy initial lesions in their early stage. The best plan is to give ether, and then very deliberately employ the Pacquelin's cautery in the most remorseless manner.

As to the excision or destruction of chancres at later periods, and especially after their true character has been disclosed by the occurrence of induration, I have very little personal experience. In one case, at the wish of the patient, himself a medical man, three chancres on the skin of the fore-arm, which had just assumed induration, were excised in the freest possible manner within five weeks of contagion. Syphilis, however followed without the slightest evidence of

delay, and was severe and persistent. Auspitz, of Vienna, who made many excisions, reported frequent prevention of syphilis, and delayal of its development. On the other hand, Neumann, Zeissl, Mauriac, and others, who used the same method at similar stages, had only disappointing results.

Commentary VI.

On erratic chancres (syphilis sine coitu).

Erratic chancres, or chancres on other than the parts usually affected, are much more common than is generally suspected. They are of great importance, not only on account of the social injury which errors respecting their source may cause to the individuals, but also from the mistakes to which they may lead in clinical observation as to the course of syphilis. Thus it may happen that a young child or an infant may have had an erratic chancre which has never been recognised, and that the subsequent results may be attributed to congenital disease. The diagnosis of these chancres is often extremely difficult. I have frequently seen them on the hands of well-trained medical men, who themselves had never suspected the nature of the sore until secondary symptoms appeared. The limits of variability as to the conditions of these sores are very wide indeed. An infecting chancre on the finger may never show anything more than a small dusky spot, not ulcerated, not attracting attention for more than a few weeks, and leaving nothing but a little brown stain. Yet, after such a sore, there may be a full development of syphilis. On the other hand, there may be such an excess of inflammatory action that all trace of specific induration may be concealed. In young infants this usually occurs, as in chancres after circumcision. The chancre itself may, in some cases,

spread very widely. Thus I have known a case in which an indurated sore, by no means phagedænic, included nearly the whole of the palm of the hand, and another in which nearly the whole of one side of the face was involved in a huge indurated chancre.

These sores may occur on any part of the body. On the lips, from kissing, the use of drinking vessels, pipes, etc., they are not uncommon. The midwifery chancre on the finger is a form from which medical men suffer most severely, and it assumes great additional importance from the risk there is of conveying it to their patients. Chancres on the nipple are also not very infrequent, although I cannot say that, in my own practice, I have seen more than, perhaps, half a dozen. They are not restricted to married women. Amongst the more infrequent positions, I may mention that I have seen primary sores in the middle of the sole of the foot and the palm of the hand, on the scalp and face, on the ear, on the nose, and on the skin of the chin at some distance from the lip. I have three times seen them on the tongue, twice on the tonsil, and twice, at least, on the conjunctiva of the eye-ball.

Even in cases in which chancres are met with on the genitals they are not always consequent on coitus. In children they are not infrequently accidental, and in adults the stories which we so often hear as to infection at water-closets, etc., are, I doubt not, in exceptional cases, really true. In two instances, I have known an epidemic of syphilis amongst lying-in women, and subsequently their husbands, from inoculation of the genitals by the finger of the accoucheur during labour.

The following memoranda on this subject may prove of interest :

Soft or non-infecting sores are almost never observed excepting on the genitals. It is difficult to assign a satisfactory reason for this. It may be that they seldom develop their peculiar features excepting

on the genitals, and are thus not recognised when seen on other parts.

Erratic chancres, like those from coitus, are usually single. In some cases, however, they may be multiple. Thus I have in policemen, in two instances, seen several present together as the result of injuries received in scuffles with infected men. In another case, a sailor who had fought with a diseased comrade, and been bitten in many places, had six or eight indurated chancres on his fingers, fore-arm, one ear, and chin.

Although induration is often present in a most marked degree, it is often absent, and the diagnosis may become most difficult. The surgeon should in such cases carefully examine the lymphatic glands. The chancre which affects the nail-bed, for instance, is scarcely ever indurated, and often suppurates very freely.

It is impossible to make too much allowance for the extraordinary appearances which these chancres sometimes assume. Their enormous size is often very misleading.

There is an opinion abroad in the profession that syphilis, when consequent on an erratic chancre on the skin, is a more severe disease than when following a sore in the genitals. I do not believe that there is any foundation for this creed. Syphilis, however produced, is one and the same malady. In different individuals it may vary very greatly in its severity, but these differences have nothing to do with the position of the infecting sore.

The midwifery chancre is so common, and its effects so disastrous, that it behoves those engaged in this line of practice to take the most scrupulous precautions. All abrasions or cracks on the fingers in surgeons should be protected by indiarubber finger-stalls, and even when the skin is quite sound, vaseline or some equivalent should be very freely used before making an examination.

Although in a few instances erratic chancres may result from immoral practices, yet it may be held that in a vast majority of cases they are matters of accident, and imply no fault whatever in those who suffer from them.

Commentary VII.

The incubation period of chancres.

Although I have, I believe, in previous writings, always put the incubation period of chancre as longer than that usually given by authors, and have constantly asserted that it is far more regular and uniform than is generally believed, yet I have never previously given it a duration quite so prolonged as that which I am now inclined to claim. I have formerly held that a month is its average, and that it is more frequently rather shorter than longer. I should now be inclined to say that a month is a short average, and that five weeks is a more common period. As will be seen by reference to the facts to be adduced, in most of the cases in which accuracy was more especially easy of attainment (where medical men, for instance, were the patients), five weeks usually elapsed before any trace of local irritation manifested itself. After this a week to ten days, or even a fortnight, passed before the sore assumed characters which could be considered diagnostic.

The explanation of what I hold to have been the errors in the former calculations as to the incubation period, is probably to be found in the fact that data have often been accepted which were not worthy of trust. In order to avoid confusion, it is needful to be precise as to whether, by "incubation period," we mean the interval between contagion and the first sign of irritation, or between contagion and the first characteristic development of induration.

Commentary VIII.

Cases illustrating the incubation period.

The following cases illustrating the incubation period have occurred under my own observation :

(1) A married physician, Dr. A., on one single occasion went astray. He carefully observed all that followed, and it was not till the forty-second day that a pimple under the prepuce was noticed. A chancre developed itself, and syphilis resulted.

(2) A surgeon of much experience gave me the following fact. The circumstance occurred to himself. He had intercourse of a suspicious nature on one occasion only. He observed nothing whatever on the penis until five weeks and three days had elapsed, when he found a small papule. This soon afterwards became indurated, and was followed by secondaries.

(3) About the same time as the preceding case I had another patient, who had a chancre after a single intercourse, and who alleged that he was certain that there was no visible sore until five weeks after the exposure.

(4) A well-trained observer (M.B., Lond.) exposed himself to the risk of syphilis on a single occasion, on the 4th of March, and afterwards anxiously noted the results. On the morning after connection he had a little abrasion in the prepuce close to the glans. He used lead lotion, and in three days it healed. It remained quite sound until the second week in April, when it began to look a little dusky. On the 17th of April it was decidedly swollen, and just beginning to ulcerate. On April 23 it was definitely indurated, and showed in the centre a group of minute ashy-grey ulcers. At this date he had no rash, and no appreciable enlargement of the glands. There being not the slightest doubt that the induration was specific, I now directed him to take mercury.

PLATE III.

VACCINATION CHANCRES.

Fig. 1.—Three chancres in the scars of vaccination on the arm of a young girl. The secondary eruption on the back of the neck of the same girl is seen in Fig. 2. It is to be observed that the chancres show nothing characteristic. They are covered with pus scab, and the epidermis of the skin near them is peeling.

In Fig. 3, three chancres are shown in the recently healed scars of vaccination on the arm of a young woman. Induration is just commencing.

Fig. 2.



Fig. 1.



Fig. 3.



The course of events illustrated in this case is, I think, a very usual one. A small sore is noticed almost immediately after exposure, which heals in a few days. Then ensues a four weeks' period of rest, followed by inflammation about the little scar, and specific induration. It will be seen that seven weeks had passed before the induration was marked.

(5) A young gentleman was brought to me by his uncle, suffering from syphilis. The first ailment had been gonorrhœa, and soon after this was cured, and whilst he was still under medical treatment, a chancre had shown itself. His guardian said that he could forgive the lad having been led astray, but that he felt keenly his untruthfulness, for he persisted in saying that he had exposed himself to risk only once. The surgeon who had treated the gonorrhœa had said that this story must be false, because he had during a month frequently inspected the penis, and was certain that there had been no trace of a chancre until five weeks after the advent of the urethral discharge. I was obliged to explain that I did not think sufficient allowance had been made for the incubation period, and that in all probability the lad's statement was correct. My assurance on this point not only did the lad an act of justice, but was a source of real gratification to his guardian.

(6) In this case a young gentleman was exposed to risk of contagion but once. He caught a gonorrhœa, which developed immediately. Nearly five weeks after the exposure two sores formed on the skin of the penis, and one on that of the abdomen, between the umbilicus and pubes. They all then assumed the condition of large indurated chancres, and severe secondary symptoms followed.

(7) A young woman was attended in her confinement by a midwife who had a chancre on her finger. Fifty-three days after delivery she was found to have

three indurated chancres on the labia, but no special gland irritation, and no rash. Eleven weeks after the confinement she had a copious rash, and her hair was falling out. In this case, it is to be supposed that both the chancres and the rash had been present some little time before they were discovered

Commentary IX.

Incubation periods illustrated in vaccination syphilis.

The incubation period in eleven patients, who received the virus by vaccination on the same day, was remarkably regular. In all the cases the vaccination sore healed perfectly for a time, and after an interval again inflamed. In all at the end of eight weeks it was characteristically hard. Nearly all the patients had begun to complain of irritability of the scar in the sixth week, and some in the fifth. Two of them, a father and son, began to find that their scars itched on the same day (March 18), a little more than five weeks after the vaccination. In all these cases mercury was begun in the eighth week, before any eruption had appeared, and the latter was in almost all absolutely prevented.

In a second series treatment was delayed longer, and we had the opportunity for observing the period at which the rash and sore throat made their appearance. In some the rash began to come out in the tenth week, and was fully out when the patient was first seen in the eleventh. The sores at that period in most cases remained characteristically hard. In some of the patients the rash might have been a week or two later in its appearance; and as the assignment of date depended upon the patient's observation, error to some extent was possible.

In some other series of vaccination syphilis cases the periods, according to my published notes, would

appear to have been shorter. In these, however, we had only the patient's memory to guide us, and very possibly it was not accurate. My present belief is, the periods hitherto assigned have usually been rather too short, and that we may safely hold that the interval preceding the first irritability of the sore is rarely less than five weeks, and that a week or ten days is then taken up before the sore is typically indurated. About two weeks after this, that is, at the end of two months, rash and sore throat will simultaneously appear.

In one of the above cases, in which no mercury had been given, iritis occurred in the eleventh week. It was coincident with a copious rash which had preceded it by two or three weeks, and with still persisting induration of the sore.

Exceptions, however, do occasionally occur to what I have just said. In the case of Dr. C., who vaccinated himself from a syphilitic child, the sores became irritable as early as the twenty-first day, and at the end of the fifth week were characteristically hard, though still very small. In the eighth week a roseolous eruption appeared. In this instance the patient was vigilantly watching for the first symptoms, and thus, in all probability, noticed them a little earlier than was the case in the preceding instances. The same remark probably applies to the roseolous rash, which is, in fact, in many cases overlooked altogether.*

Commentary X.

Remarks on the preceding cases.

I have preferred, in what has just been stated, to give the results of my own observation, although on this important matter a great collection of valuable

* For full details respecting the secases see "Clinical Illustrations of Surgery," vol. i. p. 120.

evidence has been recorded by others. Barensprung, Fournier, and Le Clerc, have especially studied it. Some observers have, I think, a little failed in care to note fallacies, and hence the record of erratic opinions which it is much to be regretted should have found their way into print. For myself I may own that I have no evidence for either very short or very long periods of incubation. A certain range of variability must be admitted, but it is probably very restricted. If the contagion be effected with pure virus, in a healthy person, no definite effect will be manifest before the end of the third week, and more usually it will be the end of the fourth, or even of the fifth. All the supposed short periods are to be explained by the assumption either that the secretion was not pure, or the dates inaccurate. The irritation which ensued was that of inflammation only, and not specific. We all know that nothing is more common than for an inflamed, non-infective sore to be the precursor of an infective one. We must not admit such cases into our calculations of incubation periods. Nor are non-infectious sores always of the suppurating type. There may be a little papillary growth or a wart, but if such occur and precede a true chancre it is not to be counted as part of the latter, nor its advent reckoned as the end of the incubation period. Thus, all cases in which the vehicle of contagion is pus (as in the midwifery chancre on the finger) are to be put aside as untrustworthy. The pus may produce, apart from the virus, evidences of irritation at any period after its application. We are not to assume that these evidences, if produced at all, will necessarily appear within a few days.

In conformity with what I have said, the results of experimental inoculations, and of such modes of contagion as that which occurs in vaccination, appear to show that when blood, vaccine lymph, or any clean

virus is taken, the incubation period is uniform, whilst if pus, as from a mucous tubercle, a pustule, or vaginal secretion, then the apparent incubation may be variable and in many instances short.

I will not attempt to explain away the individual examples recorded of very long incubation periods, but shall still venture to hint disbelief as regards them. The fallacies are obvious.

Commentary XI.

How is the incubation period passed?

If it be asked as to what is usually the local condition during this long incubation period, the reply must be that it is very various. In many the patient has, from within a week of exposure, or perhaps from within a few days, a suppurating sore, which is considered "soft." In many others not the slightest sign of irritation has been observed until the expiration of a long month. In a few there was a trifling sore at first, which healed, and in the scar of which induration subsequently took place.

Commentary XII.

GENERAL REMARKS ON VACCINATION SYPHILIS.

1. *What are we to infer from the circumstance that when syphilis is conveyed in the practice of vaccination it does not affect all of those vaccinated from the tainted source?* Clearly, I think, we must believe that the specific poison of syphilis is either not contained in pure vaccine lymph at all, or that it may chance not to be equally diffused through it. In my first series of cases, two patients out of twelve were successfully vaccinated, and wholly escaped syphilis; in the second series, out of about twenty-six more than half escaped; and in the third, only one out of twelve is known to

have suffered; whilst in the fourth, only one suffered, and six or eight probably escaped.

In the first and second series it was repeatedly observed, that in those who contracted syphilis, some of the vaccination punctures developed chancres, and others did not. There cannot be the slightest doubt that it is quite easy to vaccinate from a tainted vaccifer without conveying syphilis, nor, on the other hand, that it is possible to convey syphilis either with or without the production of a normal vaccine vesicle. Now, the supposition that it is almost essential to convey some of the cell elements of the blood in order to convey syphilis, seems to my mind the most probable explanation. Probably it is not necessary that these elements should be visibly red. That the vaccine virus in a pure state cannot but very rarely produce syphilis seems probable, since, in several recorded instances, vaccination has been inadvertently performed, on a considerable scale, from a child who was subsequently found to be syphilitic, yet without ill consequences. It is probable that in a great number of instances, in addition to those placed on record, this has happened, and the evidence supplied by them in reference to the impotency of pure vaccine lymph in the production of syphilis is very strong. On the other hand, experience has fully proved, and more especially the well-recorded experiment of Professor Pelizzari, that the blood of a patient in the secondary stage of syphilis can, when inoculated, produce a chancre which will be followed by the usual rôle of syphilitic phenomena. The facts in the case referred to afford, as regards dates, etc., a very exact parallel with what was observed in all the cases which I have recorded.

2. Next we may ask, *is it absolutely necessary that blood should be drawn in vaccination in order to convey syphilis?* It seems almost certain that it is not. At any rate, there is not the least evidence in

three of the series of cases which I have recorded that the lymph used was visibly contaminated with blood. The vaccinator in each of these instances asserted that it was his habit most scrupulously to avoid making the vesicle bleed. Probably it is quite sufficient to allow the vesicle to drain or weep. With this drainage, no doubt corpuscular elements of the blood and tissues become free. According to this supposition, as soon as the first contents of the vesicle are exhausted the risk begins. It is well known that it is the custom of many experienced vaccinators to allow the ruptured vesicle "to weep," and to continue to employ its secretion long after the exhaustion of its original contents. It is, however, after Dr. Cory's experiment, no longer possible for us to doubt that "first lymph" and lymph apparently quite pellucid may convey syphilis.

3. *If the syphilitic virus and the vaccine virus be implanted at one and the same time, what will be the course of events?* The cases recorded show conclusively, that if the patient be susceptible to vaccination, the vesicle may pass through all its stages in the most characteristic manner. Then after healing of the vaccination sore, and at the end of about a month or five weeks from the inoculation, the syphilitic virus begins to show its effects, and the scar becomes irritable, inflames, and indurates. Although this course is the usual one it is not invariable, and deviations from it may be observed in connection probably with the patient's state of health and condition of tissues.

In these exceptional cases the vaccination sore never heals, and the pus scab, which forms over it, combines with the inflammatory swelling around to conceal the nature of the specific changes which subsequently occur. Should the vaccination not have taken, it is usual for the puncture to heal, and for the

patient to think no more about it until inflammation begins at the end of the month.

4. *What are the usual characters of the vaccination chancre?* As already stated, the amount of inflammatory effusion on the surface of the sore, and of inflammatory œdema at its base, may in certain cases be considerable. In several of the cases in my second series the specific characters of the chancre were in this way quite concealed. In these instances the patients were children. In the man who was the subject of my third observation the history was that the sore had been very acutely inflamed, so much so that the surgeon several times cauterised it, and probably it was on the verge of phagedæna. These conditions are, however, exceptional, and in a usual way the vaccination chancre shows but little tendency to excess of inflammation. In some cases it does not even ulcerate. It begins as a little, red, firm, glossy tubercle, which gradually increases in size and becomes harder. At the end of a fortnight, or earlier, it usually ulcerates and presents a sore remarkable for its small amount of secretion and for the hardness of its base and edges. The cases in which no mercury was given show that it may last for some months before it heals. After healing, it leaves a dusky brown scar, very different indeed from that of vaccination. The pigmentation of the scar, as of other syphilitic scars, will vary with the complexion of the patient, and is always greatest in those who are dark.

5. *What treatment ought the vaccination chancre to receive?* I can feel no doubt that should a vaccination scar take on the induration characteristic of a chancre, and should the other facts of the case corroborate the suspicion, it is the surgeon's duty without delay to begin the administration of mercury. The cases which I have recorded show in the strongest possible light the great difference in result between those in

PLATE IV.

CHANCRE OF TONGUE, AND PAPILLARY GROWTHS ON TONGUE.

Fig. 1.—A well-characterised indurated chancre, circular in form, and with raised edges near the tip of the tongue. The patient was a young woman. In the middle of the tongue, far back, may be seen a patch of papillary growth, part of the secondary eruption.

Fig. 2.—A white patch of papillary growths in the middle of the posterior part of the tongue of a man who was suffering from constitutional syphilis.

Fig. 3.—A papillary patch in the middle of the tongue in precisely the same position as the two preceding.

These portraits illustrate the statements at page 17, as to syphilis being sometimes a cause of overgrowth.

Fig. 1.

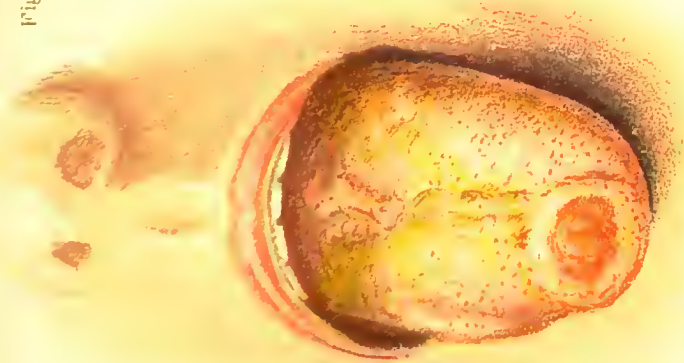
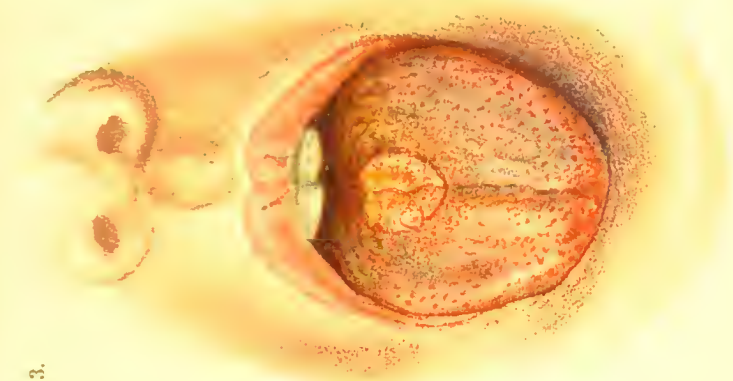


Fig. 2.



Fig. 3.



which mercury was given and those in which nothing was done. In my *first series* of cases the nature of the accident was recognised during the sixth week after vaccination, and prior to the occurrence of any well-marked secondary symptoms. To all the patients, excepting one, mercury was at once commenced, and in all these the progress of the chancre was at once arrested and rapid cure resulted. For a considerable period no secondary symptoms showed themselves, and the success of the treatment was such as to induce not a few to doubt the correctness of the diagnosis. Subsequently, however, secondary symptoms showed themselves in several of the patients. They were so well characterised as to put all scepticism about the nature of the disease out of question, but still they were comparatively very slight. They yielded very quickly to the renewed administration of mercury, and none of the patients in any material degree lost health either from the disease or the remedy. Iritis did not occur in any single one, and I believe they are all at the present date quite well.* The only case which gave any real trouble was that of a young woman in whom suppuration in the cervical glands took place, and in her most probably it was strumous

* The above was written in 1872. At the present date I am obliged to except from this statement Mr. W—— and his son, both of whom have since suffered from syphilitic orchitis. The father has also been threatened with cerebral symptoms. In the son, one of the scars is now again, at the end of four years, surrounded by dusky redness (lupoid?). These patients took mercury for a much shorter period than most of the others.

To this note, written in 1878, I may now add another (March, 1886): Both father and son have been for the last eight years in good health. The father recovered from an attack of hemiplegia, and has had no recurrence. The son married seven years ago, and has three healthy children. The father has recently (thirteen years after the original disease) had a return of inflammation in one of the scars left by the vaccination chancre. He thus affords a most remarkable instance of the liability of chancres to relapse.

rather than syphilitic. The contrast in this respect, very great between the *first* and *second series*, was still greater in respect to the two cases which I subsequently recorded (*third* and *fourth series*). In neither of the two latter was the nature of the disease suspected until the skin was covered with secondary rash. In both the chancre on the arm became very large and remained open for several months. In both the eruption came out most copiously, and was attended by great loss of flesh and strength. In both iritis of a very severe character occurred. One of them was cured, both as regards local phenomena and general health, by a course of mercury; in the other, the disease, under inefficient treatment, lingered for twenty months, and the patient was still suffering much from its effects. It is, of course, too early to obtain data as to the relative liability of these patients to the tertiary forms of syphilis, but so far as the primary and secondary symptoms are concerned I cannot speak too strongly as to the vast apparent advantage of the mercurial plan. The lesson of the cases is very clearly opposed to the too prevalent modern doctrine, that it is well to wait for secondary symptoms before beginning specific treatment, and would appear to indicate that the latter should be adopted as soon as ever the condition of the chancre permits of an accurate diagnosis. I may also ask attention to the interesting illustration which these cases afford of the manner in which mercury interrupts the evolution of syphilis and delays the occurrence of secondary symptoms. In all the cases which were not treated, secondary symptoms showed themselves from the sixth to the tenth week after the inoculation, whilst those treated by mercury did not show symptoms until from five to seven months afterwards.

A few words must be added as to the best means

by which we may hope to prevent the occurrence of these lamentable accidents in future. Foremost under this head I would put the diffusion of the knowledge amongst the profession that such accidents are possible. Until my original papers were published almost the whole British profession was incredulous on this point;* and in spite of the publicity which was then given to the facts, there still remain, I believe, some who are either uninformed or unconvinced. The vaccinator who proceeds in his duties with the fear of syphilis before him can, I think, incur but little risk in the matter. He will in the first place select his vaccinifer carefully, avoiding all children whose parents are not known to him. He will for the most part avoid all first-born children, and wait until, by the development of one healthy child, some guarantee of freedom from taint, on the part of the parents, has been given. There certainly cannot be any difficulty, under ordinary circumstances, in procuring vaccinifers who are absolutely free from risk. Next to the scrupulous selection of the child from whom to vaccinate, comes the obvious precaution of avoiding the admixture of blood and of recent exudation from the walls of the vesicle.

Commentary XIII.

On syphilis conveyed in circumcision.

It has been assumed that when syphilis is conveyed to Jewish infants in the operation of circumcision, it is usually due to the practice of the operator of putting the penis into his mouth. It fell to my lot, not long ago, to have to investigate a group of cases to which this explanation would not apply. The priest who had done the

* See answers to queries in the "Government Report" from all the leading members of the profession.

operations assured us that he never sucked the penis, and he was, besides, a man of good age, and wholly free from syphilis. The facts were briefly these :—During a period of about six weeks this man had been giving syphilis to his patients ; not to all of them, but to one now and then. He was in large practice, and the great majority of those circumcised by him, during this period, had wholly escaped. There was an interval of at least six weeks between the first infection and the last. I saw the cases in conjunction with my friend, Mr. Charles Macnamara, and we were shown seven young children, all of whom had the circumcision wound still open, and the symptoms of syphilis on them. The group illustrated, in a very instructive manner, many of the laws of syphilis, and to these lessons I shall presently advert. In the first place I will show how the contagion had been effected. We examined, to begin with, the operator himself. He had no sore on his hands, nor had he the slightest indication of having ever suffered from syphilis. His instruments, a knife and thin metal shield, were clean (as might be expected when shown to us), and he asserted that he invariably washed them after each operation. This statement may go for what it is worth, but it will, I think, be admitted to be most improbable that contagion could be conveyed by a knife, which was in daily use, over a period as long as six weeks. This consideration obliged us to put aside suspicion as to the instruments. A clue was given us on our being told that it was the custom of the priest to take the foreskin home with him, in order that it might be ceremoniously burnt. Before hearing this, I had got a strong impression that the vehicle of contagion must have been the lint used for dressing. On our asking where he put the foreskin, he told us that he always placed it in his instrument box, under the lint, adding, "See here, this is the place; you can see the stains."

There, sure enough, on the silk lining of his box were abundant stains of blood, and apparently of pus. Here prepuce after prepuce had been placed, the fresh blood of one remoistening the dried-up fluids left by its predecessors, and directly on these were laid the strips of lint which were to be used as dressings. The discovery seemed to fit precisely with the facts. No doubt the beginning had been the circumcision of a syphilitic infant. Our informant told us that in the case of delicate children the rite was often deferred for some months, and thus it was quite possible that a child in whom the disease was fully developed might have been its subject. Probably, however, it is not necessary to have recourse to such a supposition, since the blood of an infant a week old may have had the virus in an active form. It will be seen that the explanation presupposes that the virus may retain its activity for a considerable time (six weeks), and that too in spite of its being in a dried state. There is nothing, however, in the least improbable in this.

Amongst the features of interest, apart from the mode of contagion, which this series of cases illustrated, were the following: the very unequal severity of the disease, even when derived from the same source; the varying conditions of the primary sore; and the occurrence of suppurating buboes with infecting sores. Mr. Macnamara and myself were shown seven infants at the same time. In only one of these could it be said that any part of the circumcision wound was definitely indurated. In most it was large and ragged, and in two it had partly destroyed the glans by a mild form of phagedænic action. Two of the infants were fat, and apparently healthy, although both showing eruption. Two were emaciated, and very ill, and two moderately so. One looked so feeble as to suggest the belief that it would not recover, and, as a matter of

fact, it died a fortnight later. In this case the infant was quite well up to the time of circumcision, and it had been carefully treated by mercury almost from the first. There was a rumour that one or two other infants, whom we did not see, had died of the disease. In some of the infants the eruption was very scanty, in others copious. All had enlarged glands in the groins, and in two suppuration had occurred on both sides, open sinuses being still present. In those in whom abscess had not occurred, the buboes were yet of unusual size.

It was impossible to obtain any accurate dates or statements as to the progress of the circumcision sores. In all the cases the infant had passed from under the observation of the priest, it being supposed that all was doing well. Usually, at the end of about a month it had been noticed that the partially healed wound was re-opening, and inflamed. Some one part of the wound was always specially affected in the first instance.

Commentary XIV.

Chancre in an infant, sore mouth, and infection of the mother's nipple.

Dr. Lees, of the Children's Hospital, sent to me in February, 1881, a mother and child. The latter was unquestionably the subject of syphilis, and had the remains of a hard sore on one labium. It had sores at the corners of the mouth. It was about a year old. No source of its infection was known.

The mother had her left nipple sore, and its base much swollen. The induration was not very great, but there were enlarged glands in the axilla and I felt no doubt that it was specific. As yet there was no eruption.

We have here a case which might easily have been supposed to be an exception to Colles' law. A child

at the breast has a sore mouth, and its mother contracts a chancre on the nipple from it. Yet, when carefully investigated, so far from its being an exception, it tends to support the law, since it proves that when a mother is not protected, she may contract the disease from her own child.

I found afterwards that Dr. Lees had interpreted the case exactly as I did, and that he had had no doubt that the infant's sore on the labium was a primary chancre. The swelling of the part when first seen had been great, and there was a hard gland in the groin. This had been the beginning of the infant's symptoms.

Commentary XV.

On certain fallacies as to induration of chancres.

The avoidance of mistakes in reference to the diagnosis of infecting chancres is so important that I shall venture to state, in some detail, the evidence in respect to certain fallacies. I have to make two definite propositions, which are distinct, though possibly connected. The first is that it is possible, as the result of the application of caustics, to produce induration of a kind and character which cannot be distinguished from that of the true infecting sore. The second is that those who have had chancres and gone through syphilis are liable in rare instances, without fresh infection, to have the site of the original chancre indurate again, and assume most deceptive features.

Commentary XVI.

The artificial production of conditions like those of the indurated chancre.

Mr. A. H. L., a strong, healthy man, came to me on Monday, March 16, 1884, with two sores in the roll of the prepuce, which were well indurated. In each

instance the induration stood up high, as a collar, and the diagnosis might have been easily made by the eye, without the aid of the finger. The disc of induration was in each as large as half a shilling. It was abruptly bounded, and was very hard. Had I not known his history, and known also that artificial induration was possible, I should have felt sure that they were primary sores. It should be added that on the face of each, at its base, was a small ulcerated surface covered with a pellicle of soft grey lymph. This, again, is precisely the concomitant which we often see with an inflamed Hunterian chancre. Now I had seen this gentleman only a fortnight before, and he then had nothing but some very small warts at the site of the present induration. These warts were touched with the acid nitrate of mercury. The pseudo-chancres had resulted solely from the use of this caustic.

There remains, however, the question, could they have been so produced in a person who had never had syphilis? Mr. L. had six years ago passed through an attack of syphilis, and he still had some white patches on his tongue in evidence of it. It was, however, one of those cases in which no chancre was ever discovered, so that there was little probability in the suggestion that the present pseudo-chancres were in the sites of old ones. Nothing but gonorrhœa was noticed at the time by either Mr. L. or his surgeon, but a syphilitic rash, with sore throat and sore tongue, followed. These facts I had to take on Mr. L.'s statement. He had given this history before I applied caustic to his warts. It may be plausibly suggested that he had, on the first occasion, a sore in the urethra.

I think that we may take this case as proof that it is possible in a man who has formerly had syphilis to produce, by the application of caustics to the prepuce, a kind of induration which in all respects simulates that of the

PLATE V.

CHANCRE OF NIPPLE AND SYPHILITIC DISEASE OF TONGUE.

- Fig. 1.—An indurated chancre on the nipple. It was not possible to delineate anything which was characteristic. There was an ulcer with a florid surface and a hard collar above it.
- Fig. 2.—An inflamed tongue in the latter part of the secondary stage of syphilis. The whole tongue is swollen and too large for the mouth. The filiform papillæ are destroyed, on some parts producing irregular bald patches. The edges of the organ are elevated and somewhat indented, and two or three fissures are seen.
- Fig. 3.—Inflammation of the tongue at a later stage of syphilis. The tongue is much swollen, and deep sulci separate prominent bossy masses of hypertrophic induration. For the most part, the filiform papillæ are lost, and the surface is smooth and bald, exhibiting here and there a greyish film. The fungiform papillæ, and perhaps the filiform too, in some degree, are however involved in the hypertrophic masses.

Fig. 2

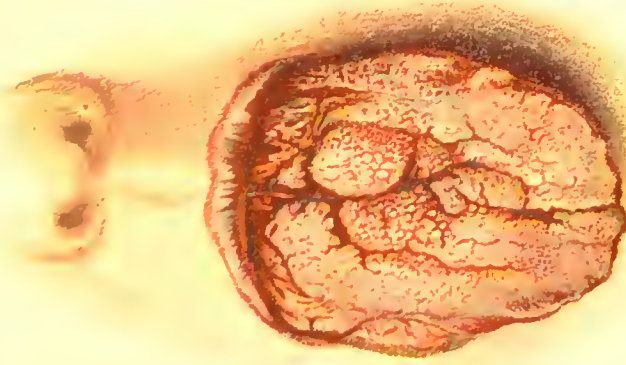


Fig. 3.



Fig. 1.



CHANCRE OF NIPPLE and SYPHILITIC DISEASE OF TONGUE.

most typical Hunterian chancre. It is a fallacy in diagnosis which, in practice, we have to keep constantly in mind, for the occurrence is by no means uncommon. When caustics have been recently used, the cautious surgeon will avoid giving any opinion as to the nature of the sore, and will always allow a week or two to elapse before he permits himself to form one. Even in those who have never before had syphilis, a sort of spurious induration may be induced by the use of caustics to soft sores, and perhaps even to herpes or to balanitic abrasions. I have never, however, seen under such circumstances the very close simulation which often occurs in syphilitic subjects.

Commentary XVII.

On the relapsing chancre.

Let me next assert that, quite independently of caustic, sores on the penis sometimes take on induration when there has been no recent infection. The sores left by herpes, when occurring in syphilitic subjects, do not always heal as herpes should, and sometimes they take on temporary induration. Occasionally also we encounter a tendency to return of induration, and perhaps of ulceration also, in the site of a former true chancre. This may happen even at long periods, say some years, after infection. Now and then the recurrence seems to be induced by sexual intercourse (without the slightest risk of contagion); but sometimes it is, so far as our observation can extend, quite spontaneous. I have several times seen it happen in a man soon after his marriage. In further proof that these returned chancres are not really new ones, it may be mentioned that they almost always disappear quickly, and almost without treatment, and that they never lead to anything in the way of secondary symptoms. Nor do they cause

the lymphatics to enlarge. A final and convincing proof is that recurrences of induration may happen, to the same man, half a dozen times.

One of the most remarkable cases in illustration of this which I can adduce is that of Mr. M., a gentleman who had suffered severely from syphilis and lost his vomer four years before I knew him. He was in robust health. In January, 1872, he came to me with a three-weeks'-old collar of induration in the reflexion of his prepuce. It was quite clean and almost without secretion, not much larger than a large pea, but in all respects exactly like an infecting chancre. He assured me that it was impossible that it could be from fresh contagion, and said that he had experienced the same occurrence several times before. His wife never caught the disease, although he had, he said, often exposed her to risk if these indurations were chancres. The first recurrence was in 1869; the second in 1871. There had never been bubo nor any secondary symptoms. The indurations usually lasted three weeks or a month. The original infecting sore was in 1867, and it was in precisely the part where the recurred ones had come. I saw Mr. M. again a year later for another induration. It is to be specially noted, that during the three or four years that he was thus liable to recurrences of chancre-like induration in the site of the original sore, he had no other symptoms of syphilis, but appeared to be in excellent health. This gentleman has been under my observation at times for fourteen years since the occurrences described, and has of late remained quite well so far as any specific symptoms are concerned.

In 1860, writing on this subject, I said that I thought I had seen at least a dozen well-marked examples of the "relapsing chancre." In one instance then mentioned a man had been three times under

hospital care for relapsed induration, and in another a man had presented himself four times in as many years with recurred indurations, always in exactly the same place.

In the case of a lady whom I once saw with Mr. W. Allingham for tertiary syphilis, I was told that relapse of induration of the original sore had occurred repeatedly, always in the same place.

In 1865 a gentleman was brought to me who had been about a month married, and in whom the scar of a "soft sore" had reopened and become hard. He had a disc of most characteristic induration. It was fifteen months since his "soft sore," but he had also had a chancre of some kind six years ago. On each occasion his sore was attended by enlarged glands, which did not suppurate. It did not appear that he had ever taken mercury, or ever had definite secondary symptoms. I am not able to state the sequel.

In the following case very remarkable difficulty had been experienced in getting rid of the induration and keeping it away. Mr. P. consulted me in September, 1860, having then the remains of a collared chancre in the reflexion of the prepuce. He had also a sore throat. He said that he had been under mercurial treatment since February, and that the sore would not yield. I ordered inunction, and in a month all trace of the sore was gone. He now omitted treatment, and the hardness speedily returned. In November the sore was both hard and ulcerated, but in December, during slight pyalism it again disappeared. In April, the treatment having been suspended, it was again hard. After another mercurial cure he remained well some months. In May, 1862, he came to me with another sore, which was definitely indurated. It had been present six months, and had hitherto resisted mercury. This sore looked exactly like a newly acquired one, but it was in the

site of the old ones. It is to be admitted that fresh exposure was possible, and that the four indurations which occurred during three years may, should the reader prefer that hypothesis, be all considered as new and independent chancres. For myself I confess that this seems improbable, having regard to the facts of the other cases, and also remembering that none of them were followed by fresh secondary symptoms. During the whole of this period there had been occasional sores on the tongue, but no general eruption.

I once witnessed, in the case of a vaccination chancre, a very decided tendency to become hard and inflamed for a second time two years after the first one. This fact is especially valuable, because it was impossible that there should have been any fresh contagion. Mercury was given, and the scar was soon again sound. It has remained so ever since, and the patient has now been eight years married and has a healthy family.

The knowledge of the facts as to the recurring chancre is of very great importance, since without it very serious mistakes may occur, not only as regards treatment, but in reference to social and even medico-legal questions.

I believe that I was the first to describe this Relapsing Chancre.* My notice of it was given in *The London Hospital Reports*, 1866. Two years afterwards a quite independent and much more detailed account of the same phenomena was given by Alfred Fournier, of the Hôpital St. Louis.

* Fournier's paper on the Pseudo-Chancre Induré was published in the *Archives Générales de Médecine*, 1868. This and others of the valuable clinical memoirs of this distinguished surgeon are in course of translation for the New Sydenham Society.

Commentary XVIII.

A case of relapsing indurated chancre, or rather of a chancre persisting with variations for seven years.

An interesting example of persisting and relapsing induration in a chancre came under notice in January, 1878, at the Hospital for Skin Diseases. The patient, a man of thirty-three, had a large depressed scar on the glans, the edges of which were raised and as hard as cartilage. It was in no respect to be distinguished from a well-marked hard chancre, excepting by the depressed scar in the middle. In the roll of the prepuce, near to the frænum, was another small collar of induration, again exactly like a fresh indurated chancre. Neither of these indurations was ulcerated. Now the man's statement was that the scar on his glans had been present seven years, with varying degrees of induration. The other he thought had come within a few months. He had no secondary symptoms.

He was a married man, and his original sore had been contracted during married life. Three children born since had died; one of them covered with eruption. He asserted strongly that he had never been exposed to contagion since this occurrence, and alleged that the sore on the glans, after having for a time healed, had since repeatedly hardened again. He thought it had scarcely ever been free from some hardness. He said that he did not think that his wife had ever suffered, but in this he was probably in error. At the time I first saw him he had been for six months under Mr. Tay's observation, and the sore on the glans had been present all the time. When first admitted (July 17) the sore was open. Mr. Tay suggested that it was a tertiary sore, but the remarkable point is that it had always persisted in the site

of the original chancre. How to account for the induration in the roll of the prepuce, which was said to be a new matter, I do not know, excepting on the hypothesis that he had formerly overlooked it. This man had been, in 1876, under treatment at this hospital for ulcer on the leg and spots on scrotum, but at that time no note was preserved as to the state of his chancres.

The last case which I shall cite is one in which there may be differences of opinion as to whether the second sore was more probably a new chancre or a relapsed one. I have explained in the narrative the reasons which lead me to put it into the latter category.

Commentary XIX.

On a remarkable case of recurrent indurated chancre (eight years after the first).

Captain H. had a chancre in October, 1869, which indurated, and after which he had ulcerated sore throat and severe neuralgia in the right side of his head. He was treated with specifics by one of our leading physicians. He had no secondary symptoms, that he remembers, except the sore throat, and he was soon well. He married in the following July, that is, within eight months of contracting the sore. His eldest child was born ten months later, and has never presented any suspicious symptoms. He remained quite well and free from reminders until November, 1877 (that is, eight years), when exactly in the site of the original sore another induration formed. It became very hard and of considerable size. He consulted the physician who had treated him before, who said it was as hard as cartilage, but declined to give any opinion as to its nature. Soon after this his right eye inflamed, and on the upper part a thick dusky patch of episcleritis formed. At the same time there

was iritis with vitreous opacities. I should say that, according to the testimony of his medical attendant, his pupil dilated before there were any signs of inflammation. The date of the beginning of irritation in the site of the chancre was September, 1877; the pupil was dilated in November. During February he was under the care of an ophthalmic specialist, and in March he was sent to me. At this latter date the remains of a collar of induration in the roll of the prepuce were still very evident. I pressed him as to whether he had not exposed himself to fresh contagion. This he positively denied, and, in support of his denial, were the facts that his wife had caught nothing from him, that he had not had either rash or sore throat, and that the iritis was unlike that of secondary syphilis. In the sequel the iritis or irido-cyclitis proved very chronic, and he was six months under my treatment. Vitreous opacities, adhesions, and pigment on the lens were left. Its course was wholly unlike that of common syphilitic iritis. During these six months not a single symptom of secondary syphilis developed itself either in him or his wife, although cohabitation had not been suspended in the early stage. The whole period of the induration was at least three months, during the greater part of which it was healed over, but very hard. It melted away very slowly under vigorous mercurial treatment.

In cases such as this, in which the interval of immunity is very long and the recurred induration very persistent, it may be suggested that the latter is of the nature of a tertiary gumma of the prepuce. Mr. Lee has, I think, recorded a case with this diagnosis. Still, the peculiarities of the sore remain very definite.

Commentary XX.*On syphilis without well-developed chancre.*

Mr. N., aged about twenty, came to me complaining that he had a sore throat. I found symmetrical, rather deep ulcers in the tonsils, and taxed him with having had a chancre. "Why, that is just what Mr. —— said," he replied, "but I haven't had anything of the kind." I looked again and felt certain I was right. I examined his penis and found on the glans a red patch, as if from a slight abrasion. There was no trace of present sore, and not the slightest induration. I could find no trace of rash. He was perfectly candid, and admitted having had connection about six weeks before. A few weeks before that he had had a slight discharge from the urethra, but it lasted only a few days, and he took no notice of it.

This case may serve as an example of what is, I think, not very infrequent, an infecting chancre wholly without either induration or ulceration. An abrasion of the slightest possible character, or even a little inflamed patch, such as we often see from simple balanitis, may prove an infecting sore. I am sure that I have witnessed this repeatedly, and have no hesitation whatever in asserting that the primary sore of syphilis is often without induration.

Commentary XXI.*On the reputed absence of the chancre in certain cases of syphilis.*

However definitely, as a matter of pathological accuracy, we may repudiate the notion that acquired syphilis can ever begin without its initial lesion, yet for practical purposes we are obliged to admit that

there are cases in which this escapes the patient's notice. In women this is very common, for the reason that the indurated sore is often free from inflammation, and causes no subjective symptoms. It is also quite possible that on the male genitals a quiet hard chancre, which would be easily recognised by a surgeon, may escape the notice of a non-observant patient although present for some weeks. There are cases, however, much more difficult of explanation than these. I refer to those in which patients, well informed and nervously anxious about syphilis, assure us that they have carefully inspected themselves every day, and have certainly never had a sore. In such we may suspect a sore in the urethra, but if such be the fact, then it is certainly possible for the "urethral chancre" to be wholly devoid of local symptoms. I have seen such cases repeatedly, and several times when intelligent medical men were themselves the subjects, and have been from first to last quite unable to discover any probable site for the original sore, or to give any plausible explanation of its apparent absence. We are obliged, then, to admit that occasionally syphilis may occur without any primary sore having been discovered by careful and even by skilled search.

Commentary XXII.

On sores on the fingers which were supposed to be chancres but did not prove such.

Although I have scarcely ever, as already stated, identified a venereal sore, which was not infecting, on any other part of the body than the genitals, yet I have seen several to which some suspicion attached. We encounter these chiefly on the fingers of surgeons who have received pricks. And in some of these it is very probable that the diagnosis of a soft sore might be justified.

In 1880, the house-surgeon of a provincial hospital came to London on account of a large phagedænic ulcer on the knuckle of his right middle finger. He had seen two surgeons before he came to me, and had been advised to commence the use of mercury without delay. I saw him on the 15th of June, and the history was that he had pricked his finger on June 2nd; that a little sore had immediately followed, and that phagedænic action had shown itself on the 6th. The ulcer was large, ragged, and very much inflamed. I advised that, before commencing treatment by mercury, we should try free cauterisation with the acid nitrate. This was done twice, with an interval of a few days. It produced healthy action and rapid healing of the sore. A gland, which was enlarged, rapidly subsided. There was never any induration of the scar, nor did any secondary symptoms follow. I saw the patient two months after his infection, when he was quite well. Six years later I learned that he was married and had healthy children. It is quite possible that in this case a sore which might have proved infective was wholly destroyed by the phagedænic process. It will be seen that phagedæna set in within four days of the poisoning.

I remember well another case, almost the counterpart of this, in which also a house-surgeon, whose fingers were frequently exposed to risk of inoculation, was the patient.

In a third case I was consulted on account of a phagedænic sore on the finger of a boy. In this, too, a free application of the acid nitrate was successful in procuring healthy action and sound healing. The patient was only ten years of age, and it may be considered extremely improbable that the sore was venereal. I must add, however that he was the son of a surgeon, and that it was therefore within possibility that he might have inoculated a wound on his

finger from a towel or sponge in his father's surgery. It is certainly very unusual, indeed, in my experience, unexampled, for abrasions or wounds of the finger to take on phagedænic action under circumstances when the risk of venereal infection seemed out of the question.

Commentary XXIII.

On the fallacies which attend attempts to estimate the relative frequency of the different forms of primary sore.

Many statistical statements have been published as to the relative frequency of infecting and non-infecting sores. Unless the individual cases which go to make up such statistics have been collected with the utmost care the resulting statements must be most misleading. In the first place, all cases in which the incubation period is not complete must be excluded; since the sore which is to-day classed as a "soft" one may, in the course of a week or two, take on induration. In the next place, the surgeon must not rely too much upon his own powers of diagnosis, and must recognise the fact that induration is often an ill-marked and very transitory condition. He must follow up his cases, and must not place any in the list of "non-infecting sores" unless he has ascertained by prolonged observation that no constitutional results of infection followed. It is a matter of everyday occurrence for patients to come under care with constitutional syphilis and with the statement that the surgeon who saw the chancre said that it was only a soft one. In many cases such statements may imply inexperience; but this is by no means always so.

In the collection of such statistics as those alluded to it is essential to note whether or not the patient has had syphilis before, since the peculiarities of his

sore may possibly be in connection with a former attack. If such statistics have been obtained by simply counting up the results of the diagnosis on the patient's first application at some public institution, they are, I must repeat, quite valueless for any scientific purpose.

Commentary XXIV.

Case in which buboes in the arm were followed by syphilis, although no chancre had ever been observed.

I have seen not a few cases of syphilis in which the patient disclaimed all knowledge of a chancre. In some of these the negative evidence was strong, and, although the circumstances were such as to permit of perfect candour on the part of the patient, I could never arrive at any plausible conjecture as to where the primary sore had been placed. In the case which I shall now relate the facts seem to indicate that it is possible for the virus to be absorbed on some part of the hand, and to cause bubo and constitutional symptoms, and yet for the sore, if sore there were, to escape the notice of the patient.

A very intelligent surgeon, of middle age, who was married, and the father of healthy children, consulted me on account of swollen glands just above the elbow. One of these suppurated, and, after a small quantity of pus had been evacuated, it healed but remained hard. The glands in the axilla indurated, but remained loose and showed no tendency to inflame. I examined his hand carefully, and could find no sore; nor had he ever observed any. Abandoning the suspicion of syphilis, I sent him to the sea-side to improve his health. There he became ill, was feverish, and had symptoms of thrombosis of the veins in the

legs. These symptoms ended in the development of a free syphilitic eruption, with sore throat and patches on the tongue. When he returned to me there could be not the least doubt about the diagnosis. I now examined his penis and groins. There was no trace of sore or of enlargement of glands in these parts. The bubo in the armpit was still present. Dr. M. now remembered that about six weeks before his glands in the arm began to enlarge he attended a woman in her confinement who suffered from syphilis. All his symptoms subsequently yielded quickly to the use of mercury. I had a sketch taken of his tongue as the best example of true syphilitic psoriasis of that organ which I have ever seen. The eruption on the tongue was coincident with eruption on the skin, and, like the latter, disappeared at once when mercury was given.

In this case it is quite certain that the patient had syphilis. It is highly improbable that he had a sore on the penis, whilst it is certain that he had buboes in the arm, which were unexplained unless they were caused by the imbibition of virus from some part of the hand. We may conjecture that the virus got under one of the nails or infected some crack at the side of one, but that it never induced any perceptible degree of soreness is unquestionable. It is the more remarkable that, with such entire absence of local irritation, the bubo should have suppurated.

Commentary XXV.

An example of an apparently insignificant chancre.

About the same time that the subject of the preceding commentary was under my observation, another case occurred illustrating the occasional apparent insignificance of the primary sore. An obstetric physician, whom I had attended nine months previously for a finger chancre, brought to me one of his patients, whom he feared that he had infected. He had examined this lady for piles when he had a sore on his finger, but before he had suspected its true nature. This lady was, when we saw her, unquestionably suffering from constitutional syphilis. The primary sore was a little glossy spot about as big as a split-pea, on one of the nates, exactly where the finger had probably rested in opening the parts. He had been all along aware of its presence, but it had never ulcerated nor caused any annoyance except a little itching. It was, however, decidedly hard. There were no enlarged glands.

Commentary XXVI.

A case of syphilis without either chancre or bubo.

The following narrative was supplied to me by the surgeon who was the subject of the case. I could give several similar ones, in more than one of which I had the opportunity of examining the genitals within a few months of the probable date of contagion. The subjects of these cases are usually medical men. Since it is admitted that chancres on the genitals may disappear early and leave no trace, the negative fact as regards this rests upon the patient's own testimony. In this instance and on others I entirely believe my patient's assertion that he

had never been exposed to risk. I give the facts in his own words with some additional details, which are of interest :

“In 1867, eight years after my marriage, and the fortieth of my age, and never having had *any venereal complaint* in my life, I found myself languishing in health, and believed I had got infected with typhoid. One morning, while stripped for washing, my wife drew my attention to the fact that I was ‘spotted all over,’ and I found the trunk of my body covered with roseola. I consulted two of my medical friends, both of whom at once said that I had contracted syphilis. This, I protested, was impossible, as I had had no sore of any description. My health grew worse, and, having met my friend, Mr. L., in consultation, I asked him also to examine me. This he did, and also pronounced my complaint to be syphilis. At this time my throat was ulcerated, my hair was falling off, and I, unwillingly, was compelled to accept the only explanation of my condition. Mr. L. examined me very minutely, but was unable to find any trace of a primary sore; the fact being that I am perfectly unconscious up to the present time of any mode by which the virus entered my body, although I am perfectly certain that I have had a full and complete attack of syphilis.

“I may add that my wife has had five children, born in 1860, 1862, 1863, 1866, and 1870 respectively. The first died in infancy of diarrhœa, consequent on his mother’s breasts gathering. In 1869 my wife was taken ill, and on examination (she having a slightly bloody discharge per vagina) we (Mr. L. and myself) found a specific ulceration on the cervix uteri, and she brought forth her youngest child also the subject of syphilis, thus proving the, alas! too true diagnosis.

“The treatment which I underwent was inunction

of blue ointment in my axillas, with the only perceptible result of gradual improvement in health. The same course was adopted in the other two cases, with, I am grateful in being able to say, complete success. My wife's health has since been very good, and the boy got his second teeth perfectly sound and normal. I believe I have completely recovered.

"What I am desirous of conveying to you is the full belief that I have had a perfect attack of syphilis without the slightest appearance of *any local disease of any kind*; neither have there been any chances of infection, except such as are common to every medical man in the legitimate exercise of his profession.

"I may add that I have had no glandular enlargements or irritation save in my neck, arising from ulcerated throat."

CHAPTER II.

CASES AND COMMENTARIES IN REFERENCE TO THE
EVENTS OF THE SECONDARY STAGE.**Commentary XXVII.**

*Rheumatoid pains in the course of secondary syphilis.
Are they due to mercury? Question of treatment.*

What are called osteocopic pains, or the rheumatoid pains of syphilis, are, as is well known, of common occurrence in the secondary period. In some cases they are of great severity, and dominate all the other symptoms. When this happens it is probable that the patient is of the arthritic diathesis, and that he has been exposed to the ordinary causes of rheumatism. The pains are confined neither to bones nor joints, but affect them both, also the muscles and fascia. I may adduce the following case as a good example of them:

In June, 1880, I treated a young and healthy Scotchman for primary syphilis. He took mercury, and, excepting a few patches on the tongue, etc., had no secondary symptoms. In September he became the subject of the most violent attack of bone-ache which I ever witnessed. He had also at the same time ulcers in the tonsils. These symptoms had followed a night's exposure to great cold in crossing the Irish Sea. He did not "catch cold" at the time, but the pains followed. He described his pains as affecting all his bones, muscles, and fasciæ. For many nights he could not sleep at all; yet there was little or no swelling of any joint. I much feared that the attack might result in

crippling rheumatism, as there was a history of family proclivity. As the attack had developed whilst he was taking mercury, and apparently from exposure, I was at a loss whether to attempt to relieve it by that drug, or whether to desist. Although he was quite able to go about, and much wished to come to his City office, I insisted on his keeping his room. Treatment by opium, gum guaiacum, and iodide failed during a fortnight to give him any relief. At the end of that period I resumed the mercury, in combination with iodide and opium, and under that plan he slowly recovered. After he had got rid of the pains in his limbs he still suffered from aching in his back and testes. His final recovery was perfect, the aches having entirely disappeared.

When pains of this kind occur during mercurial treatment, it is always very difficult to say whether or not they may be due to the treatment. It will be always safe to desist for a time, and to give iodide instead. Confinement to a warm room is essential, and guaiacum and opium should always be given. The lesson of the above case was, however, definitely in favour of perseverance with mercury.

Commentary XXVIII.

On damage to tissues induced by the syphilitic fever.

The way in which syphilis leaves all the tissues susceptible as regards common causes of irritation was well exemplified in the case of a Swedish gentleman, who, in consequence of wearing a woollen vest in hot weather, had a copious lichen eruption. It was two years since he had been treated for syphilis. I endeavoured to console him by pointing out that in all essential matters he had for long been well. "Yes," he replied, "you may say so; but see the difference from what I was. If I smoke I get sores in my mouth,

and I used to be able to smoke all day ; if I work my brain I get headache, which I never did before, and now I have got this rash from, as you say, my vest and the hot weather. I had none of these things before I had syphilis."

Although I have no doubt that this gentleman was quite justified in attributing his various disagreeable susceptibilities to the fact that his tissues had passed through the syphilitic fever, yet I am glad to feel confident that his experience was very exceptional. A large majority of the cures of syphilis by mercury are very satisfactory, and the patient will report himself in as good or perhaps better health than ever he enjoyed before. It is quite impossible, however, in any case to foresee how the tissues after syphilis will bear unusual influences. A peculiar form of headache, on mental exertion or excitement, is common ; so are mild "sun-strokes" if the subjects of past syphilis are exposed to unwonted heat. Psoriasis palmaris is induced by the irritation of tools, or of the umbrella or walking stick. Ulcers on the tongue are very apt to follow smoking, and lastly, the irritation of a new woollen vest, or of profuse perspiration, may bring out eruptions on the trunk.

Commentary XXIX.

On the tendency to papillary outgrowths in the secondary stage of syphilis.

The tendency to papillary outgrowth which exists in some persons in a remarkable degree when under the influence of syphilis was illustrated in the case of Mr. D. This gentleman was in splendid health when he contracted syphilis in November, 1884. Under several surgeons mercury and iodides were intermittently used. I saw him on March 18, 1885, when he had condylomata around the anus, on the

scrotum, and on the penis. On his thighs, near the serotum, were large crops of low papillary warts of a brown colour. He had symmetrical ulcers in the tonsils, with elevated edges, and both his palms and soles were peeling. I ordered mercury in the form of the oleate to be rubbed in. Under this he soon became salivated. When this happened his papillary eruption everywhere disappeared, but his tongue and mucous membrane of mouth generally became covered with pellicular ulcerations. [Thus we had proof that inunction may affect the mouth just as inconveniently as administration by the stomach.]

In June he again had condylomata at the anus, and patches in cheeks and lips.

In November the sores at the anus had been cured by calomel ointment, and his mouth was well, excepting for long streaks of papillary growths on the sides of tongue, and similar patches on gums and cheeks near the last molars.

These patches were very peculiar. They were something between a true condyloma and a wart. They were quite white, and looked much like a portion of a cauliflower, flattened down. Mr. D. had continued to smoke, and that no doubt was the explanation of his mouth being the only part in which his symptoms persisted. Nothing remained on his skin excepting the stains of the former growths, and he was perfectly well in all other parts. He had been taking bichloride in combination with iodide for several months.

Commentary XXX.

Case of neuro-retinitis in the secondary stage.

An instance of neuro-retinitis occurring in the secondary stage, and producing blindness of one eye, occurred in the person of a Mrs. G. She was the wife of a farmer, and had been married just one year

when I saw her. Her surgeon, who wrote me a full account of her case, told me that three months after her marriage she had suffered from a sore throat and an eruption, which latter was at first diagnosed as scarlatina. After a while the eruption changed its character. She had intense headache and much fever, and was confined to her bed for three months. Her medical attendant now suspected the true nature of the disease, and mercury was pushed until slight ptyalism occurred. When this happened her headache was relieved and her general health improved. The rash, which had ultimately been of the varioloid type, disappeared, and left her with scars on the face much as if she had had small-pox. They were especially abundant on her forehead and temples. As her gums had been several times sore, she became tired of treatment and took her medicine irregularly. About the 12th of September, that is, in the seventh month of the disease, she rather rapidly lost the sight of her left eye. I saw her two months later, November 20th. At this time she could only just tell light from darkness with the affected eye; but, in spite of this, her pupil did not dilate much when the other was covered, and it continued to act fairly well on sudden exposure. On examination with the ophthalmoscope we found the margins of the disk indistinct, and the adjacent retina, over a very large area, opaque and of a dull grey colour. The whole of the yellow-spot region was involved in this turbid condition. The retina of the other eye was almost, if not absolutely, healthy, and her vision in it was good. She had had no failure of hearing, and, excepting the eye affection, all her symptoms had absolutely disappeared. She was very pale and feeble, having much lost health during her long illness. My chief reason for giving this case is to afford conclusive proof that nerve structures may suffer in the secondary stage.

Commentary XXXI.

A peculiar form of slowly progressive choroido-retinitis.

There are certain very rare cases which occur in connection with both acquired and inherited syphilis, in which a chronic choroiditis process is slowly aggressive for many years. It ought to be named a choroido-retinitis, for the retinae and optic nerves are involved, though the stress of the disease falls upon the choroid. Part of the changes produced much resemble those of retinitis pigmentosa. The resemblance to this latter disease is more close when the malady is in connection with inherited than when with acquired syphilis. The two eyes never suffer equally, and sometimes one is practically lost several years before the other is attacked. This disease sometimes takes origin in the secondary period.

Commentary XXXII.

Case showing the occurrence of periostitis in the secondary stage ; also the very late discovery of the chancre.

An excellent example of the early occurrence of nodes, and of the apparent jumbling-up of stages, occurred in the case of a Mr. W. This gentleman, who was married, and had never before had syphilis, consulted Dr. G. on account of severe pain and swelling on the front of one shin, which he thought must be gout. Dr. G. told him that it was syphilitic, and could not be gout. This accusation having been made, he showed Dr. G. a little sore on his glans close to the frænum, and an eruption on his body. Dr. G. applied caustic to the chancre, and prescribed iodide of potassium. In one week all pain in the

swelling on the tibia had disappeared. The rash, however, persisted, and the patient being now convinced that his disease was syphilis, and not gout, soon afterwards transferred himself to my care. Mr. W. was not very exact in his dates, but after much cross-examination it seemed probable that he had exposed himself to risk on a single occasion about three months before I saw him. He thought that his eruption had attracted his attention six weeks afterwards, and that the periostitis had occurred two weeks later. The most singular part of his story was that he had noticed no chancre until about a week before he consulted Dr. G., and during the interval he had continued to cohabit with his wife. The sore had been, according to his account, a suppurating one, and free from induration. When I saw him it was as a result of the cauterisation (a fortnight before) soundly healed, and there was no hardness. The glands in the groin were slightly enlarged, and he was covered with a blotchy eruption partly papular and partly erythematous. He had also symmetrical ulcers on the tonsils. There can be no doubt that in this case an intelligent man, well on the alert, had passed through the primary stage of syphilis without noticing it. Mr. W. was most positive that he had not observed any trace of a sore until about two and a half months after exposure, and that the secondary rash and the periostitis preceded the discovery of the sore. This does not by any means prove that no sore was present at an earlier period. Probably a small induration did exist, and was only recognised when it ulcerated. I carefully examined his body, with a view to ascertain if he had a chancre anywhere else; but it seemed that he had not. With reference to the very early period of periostitis, it may be interesting to note that both his father and

grandfather had been under Dr. G.'s treatment for gout and rheumatism. Under mercurial treatment his chancre, eruption, sore throat, and node, were all soon well.

I well remember in another case seeing a large raised node on the right forehead in a man who had his secondary eruption still on him.

Commentary XXXIII.

Symmetrical nodes on the tibiæ in the secondary stage of syphilis.

A chemist's assistant, a tall, spare man, came to me on account of "inflamed ankles." Just above each ankle, on the lower part of the tibia, was a puffy and tender swelling. Although connected with the bone, they were different from ordinary periosteal nodes, being chiefly effusions into the soft tissues. They were quite symmetrical. He had had them only three weeks, and was never liable to them before. I was puzzled at first what to make of them, but on noticing a few dusky spots about his legs, I examined further, and found him covered with a syphilitic rash. He was astonished on my telling him the nature of his case, and assured me that he had never had any sore. He admitted having been exposed to risk. He willingly allowed me to examine his penis, and I found nothing whatever except a little redness from balanitis. There was no scar and no trace of induration. His rash began about a week before the pain in his ankles, and had been out a month.

There was not the slightest doubt as to the nature of his eruption, and all his symptoms subsequently disappeared under treatment.

Commentary XXXIV.

Disease of liver, with jaundice, and followed by death in coma in the secondary period of syphilis.

In the Pathological Transactions for 1867, Dr. Wilks has recorded a case of a young woman who died in coma whilst still the subject of a secondary syphilitic eruption. The eruption had been out six months. She had been jaundiced. The liver weighed 46 ounces, had an opaque bright yellow colour, and dense consistence; it was infiltrated by a nucleated fibroid material, closely resembling that which has been described by Gubler and others as occurring in infantile syphilis.

In commenting upon this case, Dr. Wilks gives much interesting information in reference to the occurrence of jaundice in connection with syphilis, and mentions the case of a young man, under Dr. Rees's care, in whom it came on amongst the early secondary symptoms. In this instance it was followed by albuminuria and a very severe eruption. Recovery ultimately resulted, after five months' treatment.

Commentary XXXV.

On cases of unusual severity in the secondary stage.

The following case well illustrates what we may call idiosyncrasy as regards the severity of syphilis. A gentleman, aged thirty-six, married to an intemperate and dissolute wife, contracted syphilis from her in June, 1884. He had a hard sore which was not diagnosed at first, and for which he had but little treatment. After seeming to heal, it relapsed, and became phagedænic, and he was covered with a secondary eruption, which after a few months took on the type of rupia. It lasted on and off, in spite of treatment, for a year. And at the end of that time, instead of being cured, the sores were becoming lupoid

(or serpiginous). I saw him for the first time at this stage; although he had taken much iodide, and had several times had his gums made a little sore by mercury, he was still covered with eruption. Many of the rupial ulcers had healed; but many still had the limpet-shell crusts. Some of them had spread at their edges over large areas. He was thin and cachectic, and the lower part of his glans had been destroyed by phagedæna, and the urethra opened. Thus we prove the association of a phagedænic chancre with a rupial secondary eruption; a very remarkable insusceptibility to cure by treatment; and the transition of rupial sores into serpiginous or lupoid ones. There was nothing in the patient's antecedents to explain this, for he was of temperate habits, and had previously enjoyed excellent health.

Commentary XXXVI.

Lupus occurring in the secondary stage of syphilis.

A remarkable example of the early occurrence of syphilitic lupus was shown in the case of a Mrs. H., who was sent to me by Dr. Batteson, of the Bow Road, in March, 1884. Our patient's nose was deeply notched in each ala, and its tip destroyed, exactly as if by common lupus. Patches of scar and of lupus inflammation extended in her cheeks and upper lip. It had almost wholly healed under specifics. Now it appeared tolerably certain that the syphilis which had caused this ulceration was of only ten months' duration. Her husband had returned to her in March of the preceding year, and she had consulted Dr. Batteson on May 14th for a chancre and enlarged glands in the groin, followed by an eruption. She had a miscarriage in June. Her eruption and sore throat had been severe.

The patient had been treated by specifics, but only irregularly. During part of the treatment she was

in extreme ill-health with debility, etc. It was while she was in this condition six months after the primary disease, and just after the sore throat had healed, that the lupoid inflammation had attacked her nose.

It may be suggested as a fallacy that the woman might possibly have had a prior attack. I do not remember ever to have witnessed any eruption so closely resembling lupus at so early a period. The severity with which the patient suffered from the secondary symptoms makes it probable, however, that this was her first attack; and there was no history of any former one.

Commentary XXXVII.

Maladies which are considered tertiary, often of early occurrence.

I might mention many lesions, of different tissues, which have usually been counted as tertiary, but which as a matter of fact, occur most frequently in the earlier periods. Thus, for instance, the nervous system is very often attacked within the first year, or even within the first six or eight months. Neuro-retinitis, a condition which is easily demonstrable by the ophthalmoscope, almost always occurs early. It is to be distinguished, I need hardly say, from the neuritis, which is restricted to the papilla, and attended by what is known as the "choked disc," and which is usually symptomatic of an intracranial gumma. Fournier has described lesions of sensation attended with defective perception of pain, which are, he says, very common in the secondary stage. Attacks of paraplegia and the cerebral paralysis which result from disease of arteries, also occur, I am sure, much earlier in the course of the disease than they are usually supposed to, and often well within the secondary stage. When that terrible form of

inflammation of the internal ear, which leads to absolute deafness, occurs, it is almost always in the same stage of the malady as the inflammations of the eye; that is, in the second half of the first year. Less severe and more transitory attacks, affecting the ear, and attended by deafness and giddiness, resembling what is known as Menière's disease, are also not very uncommon at this stage. Although the results of choroiditis disseminata are often not recognised until a later period, yet the primary attack almost always occurs within the first eighteen months, and it sometimes happens to the ophthalmic surgeon to be able to demonstrate at this stage with beautiful distinctness, the existence of multiple gummata in this structure. From such demonstrations we may infer the sort of changes which may happen at the same stage in other tissues of the same kind; such, for instance, as the pia mater.

Commentary XXXVIII.

Symptoms of acute myelitis suddenly developed in the seventh month of syphilis; complete loss of motion and partial loss of sensation; great increase of reflex irritability.

I saw Mr. M. in consultation with Dr. Z., on February 22nd, 1886. He was in bed, and quite unable to use his lower extremities. The reflex irritability was so much increased that his legs kept twitching, every now and then, whilst I talked to him. The twitches were attended with some pain. He was having the catheter used night and morning, and his bowels were very costive. His tongue was furred and he had no appetite. He did not complain of any very severe pain in his back, and it was not tender on pressure. His nights had, however, in spite of morphia, been bad. On uncovering his legs I found that sensation was dull in all parts below the level of the

umbilicus, but it was by no means lost in any. The slightest touch caused a reflex twitch, but the muscles were not able to draw the knees up. He could move the right foot at the ankle a very little, and the left not at all. A cold hand placed on his foot was, he said, pleasant and warm. He could not tell that it was cold. I did not test his sensation so much in detail as I might have done, because of the painful twitches which every touch caused him. As regards subjective sensations, he said that his lower limbs felt numb and dull and his back very weak, but he had not from first to last felt "pins and needles." The history was that he had suffered from primary syphilis in the previous June, that is to say a little more than seven months ago. The treatment had been irregular, but on the 15th of November he had a profuse salivation. At this date he had a secondary rash freely out; the rash disappeared with the ptyalism, and he became apparently well. On the 20th of December he went to Jersey, returning on the 12th of January. At this time he was living very freely and taking no medicine. Nine days before I saw him he found one morning that his legs were weak, so that he could not stand, and he now consulted Dr. Z., who commenced the use of blue pill and iodide of potassium. Paralysis rapidly advanced, affected his bladder, and reduced him to the condition just described. I pressed him as to premonitory symptoms, and he admitted that, although he had been going about as usual, he had felt chilly down his back and weak across the loins, whilst his legs felt wooden, as if they did not belong to him. A friend who had been with him up to the day before his paralysis said that he had seemed as well as usual on the preceding night, and that he had noticed nothing the matter with him, excepting that he was complaining about its being cold when others thought it warm. Thus it was clear that his

paraplegia had advanced very rapidly, and had become complete in about seven days. It should have been added that I quite failed to excite any cremasteric reflex. We determined to give him two grains of blue pill and ten grains of iodide of potassium every four hours.

I saw Mr. M. again on March 9th. His condition was much the same, excepting that the reflex susceptibility had greatly diminished. He had been taking the pills and mixture all the time, and had no ptyalism. His tongue was red over its whole surface, with streaks of fur here and there, and absence of papillæ at the sides. He said that it was not sore. He could feel the touch of a finger on most parts of the extremities. He could, as on the former occasion, use his right leg a little, but the left not at all. There appeared to have been no spreading of the disease whatever. After this date mercurial treatment by inunction was carefully carried out, and the gums touched. The paraplegia was, however, only slightly benefited. His temperatures were normal.

Commentary XXXIX.

Case of variola-like eruption in connection with secondary syphilis.

My former colleague, Mr. James Adams, was kind enough to supply me with the particulars of a case in which a syphilitic eruption so much resembled variola that a diagnosis was in the first instance impossible. Mr. Adams writes: "The facts were noted with more than usual care, and their accuracy I can guarantee, as I saw the patient constantly. He was a young medical man. The primary disease had consisted of two sores on the right side of the glans penis, one appearing three weeks after contagion, and healing in a week *without* induration, followed by another close by almost immediately. This quickly 'skinned

over,' having a typical induration. They were both small. The glands in the right groin suppurated; those on the left side were unaffected. He took grey powder for three months, but was only slightly affected as to the gums.

"No sign of eruption occurred until just six months had elapsed. He had then left off mercury for two months. On Wednesday, Nov. 16, 1881, a few maculæ appeared on face and upper part of trunk. The next day he was very ill, and the temperature rose in the evening to 103° ; and the next morning the face, chest, and arms down to wrists were covered with a papular eruption of absolutely 'shotty' hardness. *By an odd coincidence he had been at the small-pox hospital for some hours about ten days before,* which added to the difficulty of diagnosis. Dr. Stephen Mackenzie saw the case with me, and we agreed that no positive opinion could be given for some days. There were also several pustules, or rather vesicles, on the soft palate, and a ragged ulcer in the right tonsil, but the throat appearance was not specially characteristic.

"In a few days the temperature fell to normal, and the spots, instead of maturing to pustules, gradually receded into a slightly-raised papular syphilide.

"The subsequent history is all well known to me, but is not important."

The outbreak of the eruption in this case was so acute, and the febrile temperature so marked, that a suspicion may occur that possibly the two specific poisons were at work together, and modified each other.

Commentary XL.

Psoriasis palmaris in the secondary stage.

A very definite example of the psoriasis palmaris of the secondary period occurred in the person of a

gentleman whom I saw after a lip chancre. In both palms were numerous little patches, some as hard as corns, others beginning to peel, but none larger than a split-pea. There was little or no congestion around them. This condition was in association with small scaly patches over the fronts of fore-arms as big as sixpences, and an erythematous blotchy eruption on face and trunk. The chancre on the lip had not yet disappeared, and there was a single hard movable gland as big as a filbert under his chin. The chancre had been present about three months.

CHAPTER III.

COMMENTARIES ON THE VARIOUS FORMS OF PHAGEDÆNA, AND ON THE RELATION OF SYPHILITIC PHAGEDÆNA TO HOSPITAL EPIDEMICS.

Commentary XLI.

On phagedæna in general, and its treatment.

We might almost say of phagedæna that it is, in a literal sense of the word, an accident of syphilis. It is impossible to assign its other causes. It may happen to persons in robust health, in whom no peculiarity whatever can be traced. When once it has been stopped by treatment it shows no tendency to return; thus strongly supporting the belief that it is local rather than constitutional. A patient may have a chancre which never shows any tendency to phagedænic action, and then in a few years one which does so in a most definite manner, and then, still later, another which does not. Nay, yet more conclusive, a man may have a phagedænic ulcer on

one leg and another ulcer on the other, which latter, at the same time, affords a type of a clean granulating sore. I speak of what I have carefully observed myself. Thus, I think we may say for certain that phagedænic inflammation does not always take its peculiarities from the state of the patient's system. Probably it may be bred in any syphilitic ulcer, which, having become inflamed, is then irritated or neglected as regards cleanliness. Retention of the products of inflammation, as in the case of a sore concealed by a phymosed prepuce, is the influence which seems most powerful. In many cases of inflamed chancres conditions closely approaching phagedæna are witnessed, and by timely attention to cleanliness, or by the use of specifics, the tendency is arrested. Inflammation always precedes phagedæna; indeed, phagedæna is simply an ulcerating inflammation which produces a contagious secretion. This secretion is infectious both to the adjacent issues and to wounds on other parts, or on other persons. Phagedænic inflammation may be of the most varying degrees of intensity, but is always the same in nature. Although, as I have stated, many facts seem to show that it is of local rather than constitutional origin, and is kept up by local contagion, yet it must be admitted that constitutional influences are sometimes necessary for its cure. Probably in nine out of ten cases local treatment will succeed, whilst in the tenth it will fail. Nothing that I have witnessed would lead me to put much faith in either opium or steel, although both have their advocates. If local remedies fail it will be best to send the patient to the sea-side. I have never seen a single case of phagedæna attacking a chancre which did not yield promptly to local measures carried out with the advantage of sea air.*

* An exception to this statement has occurred whilst these pages were passing through the press.

The principle of all local treatment is the removal or destruction of the secretion of the sore. In some cases iodoform will effect this speedily, and in many others a single cauterisation with the nitric acid will suffice. The immersion plan as originally practised by Hebra, in Vienna, for severe burns, is painless and often most satisfactory. I believe that I was the first to use this treatment for phagedæna, and I have repeatedly kept a patient continuously in a hip-bath for ten days or a fortnight. A few hours each night are usually allowed for sleep. In many cases immersion for two or three days will suffice to clean the sore. I have, however, seen two or three cases of phagedæna which resisted both immersion and cauterisation, or, at any rate, were not completely cured by them, and in which, as a final resort, I had to send the patient to the sea. In all cases, however, the measures mentioned sufficed to completely change the character of the sore, and to arrest, for the most part, all active destruction, though not to bring about healing. In a few chronic cases I have seen iodoform cure at once, when other remedies had failed.

In the case of the non-syphilitic phagedæna, I hold firmly that it is from beginning to end a local malady. I know of no constitutional conditions which predispose to it, and of no remedies addressed to the general health which will definitely influence its course. In the syphilitic phagedæna we have the two things to think of. We must give the patient specific remedies, more especially the iodide of potassium, and we must also treat the phagedæna element by appropriate local measures. We cannot, as a rule, cure syphilitic phagedæna by either alone. The local measures to which I refer are those which tend to prevent the continued contamination of the wound by its own secretions. Get rid of the pus cells, etc., either by the immersion plan, or by charring them up with some caustic, and we

shall soon find that the wound begins to look healthy, provided we have, at the same time, introduced a specific into the blood.

In the cases which are not of syphilitic origin, the local measures are alone sufficient. Thus we shall see that the law under which phagedæna persists in a wound in which it has once originated, whether its origin may have been autogenetic (that is, as I should hold, syphilitic) or from contagion, is the same as that by which it spreads from one individual to another. It is the contagious nature of the secretion produced. I do not think that there is the least evidence in support of the belief that it can spread by infection, that is, through the atmosphere; but in all probability the pus cells produced in a phagedænic sore are most virulently contaminating, and will produce, either upon the tissues of the patient himself, or on those of another person, a precisely similar type of inflammation. If the secretion from a syphilitic sore in a state of phagedæna be transferred to a healthy person, we shall get as the result phagedæna, but in all probability not syphilis. It would appear that the phagedænic action suffices to destroy the vitality of the syphilitic virus, or perhaps to destroy the tissues containing it, and thus to prevent its multiplication

Commentary XLII.

Case of phagedæna cured by immersion treatment.

A gentleman, aged thirty-eight, of temperate habits, stout and pallid, had a first chancre in March, 1869. It soon destroyed the frænum, but under iodide of potassium and iron it seemed to get healthy. A relapse occurred, however, and the lower half of the glans was involved in gangrene. Two months after the contagion he was brought to town. In spite of repeated use of nitric acid, almost the whole glans was

destroyed, and he had two rupial sores, one on his cheek and the other on his leg. As the relapse had occurred whilst taking the iodide in ten-grain doses, it had been put aside, and the phagedæna had been treated by opium, which had been pushed, until he was taking drachm doses of laudanum every four hours, with free allowance of stimulants. I prescribed the iodide again in ten-grain doses, with ammonia, and directed that he should disuse the opium and stimulants, and sit in a warm bath night and day. He did this, with exception of a short rest in bed at night, for a fortnight. The phagedæna never spread from the day that this treatment was begun, and in the end the sore healed well. The two rupial sores also healed under the iodide, and no other secondary symptoms followed.

This case proves the inutility of opium, even in large doses, the value of the iodide in combination with ammonia, and, above all, the efficacy of the continuous immersion.

Commentary XLIII.

Phagedæna of the nose.

One of the most destructive forms of phagedæna is that which attacks the nose. It usually occurs as a tertiary manifestation three or more years after contagion. It may be either chronic or acute. In the more rapid cases it may destroy the septum and greatly deform the nose in a few weeks. Sometimes it involves the alæ also, or it may extend backwards to the palate. The treatment must be prompt and vigorous. The nasal passages must be cleansed, and liberally cauterised with acid nitrate of mercury. Iodide of potassium and ammonia must be freely given, and iodoform dusted over the surface.

A very similar form of phagedænic ulceration of the nose, but not usually so rapid in its course, occurs

in connection with the inherited disease, both in adults and children. It has sometimes been called "erosive lupus," or "lupus vorax." It is very necessary, however, to distinguish it from common lupus, since, unless the proper special measures are adopted, the patient will be miserably disfigured. There are no cases in which prompt action on the part of the surgeon is more certain of its reward.

Commentary XLIV.

Hæmorrhage in phagedæna.

It often happens that phagedæna in the nose, throat, or other parts, is attended by hæmorrhage. In the case of an infant who suffered from it in the nose, and in whom constitutional treatment failed to arrest it, death followed. The passages were so small, and there was so much swelling, that it was impossible to adopt efficient local measures. I have several times seen arterial hæmorrhage from a phagedænic chancre, so profuse and recurrent as to threaten death, but success was always eventually obtained.

Commentary XLV.

A phagedænic sore promptly treated ; induration and secondary symptoms afterwards.

In August, 1869, the late Mr. Jenkins, of Leadenhall street, brought to me a gentleman, aged forty, who two months before had been treated for a phagedænic chancre. The phagedæna had on that occasion been stopped by a single free application of nitric acid, made by Mr. Curling. When the patient came to me the base of the scar was characteristically indurated, and he had a sparing, scaly rash. The case, therefore, proves that a sore may indurate, and that constitutional symptoms may follow after the cure of phagedæna.

The sore was in the roll of the prepuce. Our patient was in excellent health, and had never had syphilis before. I saw him again a fortnight later (September 2nd). The scar of the former ulcer was now quite sound, but beneath and above it was still a collared induration of the most characteristic kind. I had ventured to prescribe small quantities of mercury, and these were now increased, with excellent results. The case shows that the tendency to phagedæna may be only temporary, and that its cure may be effected by local means alone, and may be permanent, although the progress of the syphilis may be unchecked.

Commentary XLVI.

On the character of the eruption after phagedænic chancres.

There is nothing certain as to the type of secondary eruption which will follow a phagedænic chancre. I have seen very serious ones often, and mild ones sometimes. Rupia is, I think, more common than after other sores.

When on a visit to Newcastle, some years ago, I saw in one of the wards of the Infirmary there a remarkable instance of a rupial eruption following a phagedænic sore. The patient, a man aged twenty-five, was under Mr. Russell's care. A considerable part of the glans had been destroyed by phagedæna, the original sore having begun about fifteen months before. His eruption had been symmetrical, copious, and most severe, and was leaving large scars. It was just getting well under the iodide.

Commentary XLVII.*Summary of our knowledge as to syphilitic phagedæna.*

The following facts seem to be well established respecting phagedæna in syphilis :

That a primary chancre, at any stage, may become phagedænic.

That both hard and soft sores are liable to become phagedænic, but that phagedæna is very much more common in the hard than the soft sores.

That the secondary eruption may ulcerate, and become phagedænic.

That all forms of tertiary ulcer are likewise liable to be so affected.

That phagedæna may occur not only on the skin, but in the nose, mouth, throat, and vagina.

Further, as general laws respecting phagedæna, we may assert that (1) it is sometimes proved to be due chiefly to peculiarity in the patient's state ; thus it may be arrested by internal treatment alone (mercury or iodide). Secondly, that it is much more often proved to be due chiefly to some local cause, inasmuch as in the same patient one sore may be phagedænic and another quite healthy, and, further, that it may be cured at once by a single local application, or by the immersion plan. Thirdly, that in the majority of cases it is clearly constitutional as regards predisposition, and local as regards its evolution and perpetuation, and that the treatment must be directed to both objects ; thus in some cases, when phagedæna has got well established, internal treatment without caustics will not stop it, and caustics without internal treatment are also powerless to effect a cure. The fact that the phagedænic type of inflammation is for the most part local is evidenced by the manner in which, when once cured, the parts remain sound. Lastly, I

may remark that phagedæna is very contagious, and that it is often multiple on the same patient, being almost always so when different sores are near together, and exposed to contamination of secretions from one to another.

Commentary XLVIII.

The connection between syphilis and hospital phagedæna.

A boy, named John P., was brought into the London hospital, on February 14th, 1874, with a very large and very unhealthy sore on the front of his leg. The tibia was exposed at several places, and the case had been obviously, in the first instance, one of acute periostitis, tending to necrosis. There was nothing of unusual interest in this. The peculiarity of the case lay in the condition of the external sore. This sore extended two-thirds of the length of the bone, and was as wide as the palm of the hand. In the middle it was covered with flabby granulations, but at its edges granulations were absent, or were concealed by a grey, glutinous secretion. The edges themselves were undermined, very irregular, and looked exactly as if they had been gnawed by a mouse. There were also at several parts of the edge minute portions of skin, which were black, and evidently gangrenous, whilst others were intensely congested, and red. I believe that the impression formed by most who saw the boy at first was that the limb must of necessity be amputated. From this statement the reader will be able to form some idea of the formidable aspect of the sore.

During the first few days after the boy's admission, the sore, which was treated with simple poulticing, got worse; but at length I became quite certain that we had to deal with the malady known as hospital phagedæna. We then at once resorted to the local treatment

suited for that condition. I demonstrated to those present the several points on which my diagnosis was founded, and we then carefully applied strong nitric acid to the edges of the wound and the greater part of its surface. We must remember that phagedænic inflammation may vary in severity, may be slow or rapid, and may be attended by the sloughing of very minute or of large portions of tissue. The case before us, although presenting all the characteristic features of the disease, was of the milder class, and the fragments of gangrenous skin were very minute.

I will not occupy space by any very detailed history of the progress of the case. It will suffice to say that it improved very greatly after the use of the acid, and that it subsequently relapsed, and required a second application, after which it soon became healthy. It did not quite heal until some bone separated; but all trace of phagedænic action had then for long been at an end.

At one time, after all phagedænic action had ceased, I had the opportunity of demonstrating the peculiar characters of pellicular or diphtheritic wounds. Considerable portions of the surface were covered by a thin, coherent layer of lymph, which could be peeled off. Under this layer the granulations were found to be florid, and in good condition. This diphtheritic state appeared to be a stage in the progress towards cure, and, as I mentioned at the time, I have often before seen it under similar circumstances.

Now the question of chief interest, in reference to the case which I have mentioned, is the discovery, if possible, of the cause of the phagedænic condition of the wound. It curiously happened that it was admitted just a week after I had been boasting in a clinical lecture that I had not for ten years past had any opportunity of demonstrating to the students of my clinic the characters of hospital phagedæna. In

the same lecture I had also stated strongly my disbelief in the occurrence of sporadic, or, so to speak, spontaneous, examples of this disease; and my suspicion that all were connected, more or less directly, with the action of the syphilitic virus.

Here seemed to be a case sent to confute me. For there was no reason, from anything which we could discover in our patient, to believe that he was the subject of a syphilitic taint. It occurred to us, however, while speculating as to how he could have got the disease, that we ought to ask whether he had been exposed to any risk of infection prior to his admission here. We found, on inquiring, that he had come to us, not from his home, but from a large workhouse hospital; and, on this being mentioned, one of the students present at once told me that there was now in our wards, under the care of one of my colleagues, a very bad case of syphilitic phagedæna, which had been sent from the same institution. Hoping to throw further light on the question, I went to the workhouse from which the cases had been sent, and obtained what particulars I could. The resident surgeon was most courteously zealous in supplying me with the facts, and although they reflect not the slightest blame on him, yet it may, perhaps, be as well that I should not mention names. They are briefly as follows:

Our patient, a boy (T. P.), had been taken into the hospital with acute periostitis, and in laying open the soft parts a knife and director were used, which had, on a former occasion, been employed to slit up the prepuce in the case of syphilitic phagedæna of the penis alluded to. [In this latter case subsequently a large portion of the penis was eaten away.] Here my evidence ends. The boy, so far as I could learn, was not exposed to any further possible source of contagion. He occupied a bed in a ward to himself, which was well ventilated and not exposed to any communication

with those where the syphilitic cases were. The interval between the use of the knife and director for the syphilitic case and for the boy's leg was of some days, and the house surgeon, who was an able, and careful man, assured me that he was always very particular as to the cleanliness of his instruments. We cannot, however, at least I cannot, ignore the possibility of contagion from the source alluded to, more especially because I have treated so many cases of periostitis without ever seeing a single one, excepting during the prevalence of phagedæna, pass into the condition described. There must have been some special cause for such a special result.

I may just mention another little item of evidence, which I owe to the kindness of Mr. Johnson Smith, of the Seamen's Hospital, Greenwich, and whose permission I have to narrate it. Mr. Smith, who was going round with us, and who saw the boy, told me that in the Greenwich Hospital they often had much trouble with phagedænic wounds, and a few weeks later, at my request, he invited me to go down and see an example. The patient in question had three large ulcers on his leg, one of them perfectly healthy, covered with florid granulations, and with a rapidly healing edge; the two others in a characteristic condition of chronic phagedæna. The case, however, was not one of the unexplained occurrence of the malady, for the patient was unquestionably the subject of constitutional syphilis, and thus it supported my statements. We have had many such in the London Hospital during the last few years, and it was not to them that I referred when I stated that we had been free from hospital gangrene. Mr. S. told me that almost all the cases he could remember had been of a similar kind; that is, the existence of syphilis had either been proved or strongly suspected. He could remember but one in

which there was reason to think that syphilis did not exist. This exception was a case very similar to that of the boy (T. P.), for it was one where a young lad had been admitted with periostitis of the tibia, and in whom phagedæna had attacked the incisions which had been made in the hospital. He had been in the hospital some weeks before his wounds became unhealthy, and he was treated in a ward at no great distance from the cases of syphilitic phagedæna. Here, again, without suggesting any carelessness or want of cleanliness, for the wards of the hospital in question are excellently managed, I cannot help suspecting that accidental contagion had, in some way, happened.

In a published lecture to which I have alluded, a brief reference was made to the epidemic of hospital phagedæna from which the London Hospital suffered many years ago, and to my belief that it commenced from a case of syphilitic phagedæna which had been admitted into one of the large accident wards. I mentioned also that Mr. George Pollock had informed me that he believed that the disease was introduced in the same way into St. George's Hospital. The reader will find in the second volume of *Clinical Lectures and Reports of the London Hospital* a short paper of mine in reference to the conditions under which this malady spreads in hospitals. It has for its title, "Why did not Hospital Phagedæna occur in Gloucester Ward?" The disease on the occasion referred to was prevalent during the latter half of 1863 and the first of 1864, and it was so general and so severe that we were obliged to desist, as far as possible, from operating. It began in the east corner of Mellish Ward, and spread through the whole of its four large compartments. It afterwards gained access to the operating ward, to Talbot Ward, and I believe to all the wards in which surgical

cases were treated, with the single exception of Gloucester and its annexe.

Throughout the whole ten months of the prevalence of the disease, we were never free from cases in Mellish, but we never had one in Gloucester. Now, Mellish and Gloucester Wards have always been managed on precisely similar principles; they are exactly alike in all their arrangements, and they admit in turn, week by week, precisely the same class of cases, to wit, male accidents. The only reason that I can see for the immunity of Gloucester from the plague, which began in Mellish and spread to all the other surgical wards, is this, that whilst we were frequently sending cases from Mellish upstairs to the operating ward, etc., Gloucester never by any chance received cases either from it or from any of the other wards. Thus there was no introduction of the disease by contagion, and the malady could not originate *per se*. It was not due to overcrowding, nor to any obscure "hospital influence," for Gloucester Ward shared in these matters precisely as did the others. In further evidence in this direction I may cite the fact that, from the date of our getting rid of the malady, in the middle of 1864, to the present time, we have had no recurrence of it. During this interval, now more than twenty years, I have not seen, either in public or in private practice, a single case of phagedæna that was not due to syphilis, with the exception of that of the boy just narrated.

The last case, which occurred among my own patients in 1864, was one which made a great impression on me. It happened after we thought we had got rid of the disease. I operated, in the theatre, on the operation day, for hæmorrhoids, making, as usual, an incision at the junction of the mucous membrane and skin. At the end of a week I was dismayed to find that the wound was covered

with pultaceous secretion, and its edges phagedænic. We immediately applied nitric acid to the surface, and kept the man, night and day, in a hip-bath, and were fortunately able by these means to prevent any material spread of ulceration. In trying to find out how this patient could have contracted phagedæna at a time when there were no other cases in the ward, I came upon the following curious fact. The patient who had immediately preceded him upon the operating table, and for whom probably the same sponges had been employed, was a man for whom one of my colleagues had been removing some necrosed bone from the tibia, and who had formerly suffered severely from phagedæna. His wounds appeared healthy, so far as I could learn at the time of the operation, and had, indeed, healed to a large extent. It was, of course, not suspected that there was anything contagious about them, or he would not have been brought into the theatre; but I am told his wounds became unhealthy again after the operation.

There is another class of facts of great importance in support of the theory of the local origin of phagedæna, and in confutation of the theory of a constitutional one. You may have two wounds in the same patient; one of them phagedænic, and the other perfectly healthy. I have often seen this, but no more striking example of it ever came under my notice than the one which Mr. Johnson Smith showed me at Greenwich. In this case you might have made a sketch illustrating the characters of a florid, healthy, granulating sore, and those of an ashy, pultaceous, phagedænic one on the same leg, within three or four inches of one another. How can one account for this on any theory which shall suggest constitutional causes only? Of course, inasmuch as the man was syphilitic, and as his phagedæna originated from his syphilis, I by no means deny that

there was a constitutional cause in the background. What I assert is, that it was clearly not strong enough to cause all the ulcers to become unhealthy, and that therefore we must presume that the persistence of the phagedæna in some was chiefly due to influences of a local nature.

CHAPTER IV.

ON RUPIA AND OTHER ULCERATING ERUPTIONS.

Commentary XLIX.

On the position of rupia amongst the phenomena of syphilis, and on rupia lupus.

It would be beyond the scope of the present work if I were to attempt to produce proof, by the citation of cases, that rupia does really occur in the early periods of syphilis. Such proof could easily be brought forward did space permit, but I must leave it for clinical observers to test the assertion for themselves. It is needful, however, to say a few words as to what is meant by rupia, and as to the conditions under which, chiefly, this peculiar and rare form of eruption does occur. We must not confound, under the name of rupia, all conditions attended by ulceration and scab; for this would allow the inclusion of certain lupoid affections which do certainly, as a rule, come much later. By rupia we mean an eruption consisting of many distinct sores, which begin as bullæ, and tend to the production of conical crusts. There is ulceration of the skin beneath, but it is seldom deep, and there is a certain amount of infiltration, but never much. The face and limbs are its usual sites. Its sores are always round, unless two or more have become confluent, and it leaves round

scars. The very fact that it is usually symmetrical sufficiently denotes its position as one of the secondary phenomena; but, although I claim that such is its place, it is to be clearly admitted that it is never one of the earliest. Usually, I think, the ulcerating forms of eruption, of which rupia is one and ecthyma another, occur after a certain amount of treatment, and after the first eruptions, which were erythematous or papular, have quite disappeared. Often there has been an interval of good health, and all treatment has been laid aside. - Sometimes, however, a papular eruption is converted into an ulcerating or rupial one, apparently by too vigorous treatment. Sometimes the rupia happens, seemingly, as a consequence of neglect of treatment. Very often a peculiarity in the diathesis of the patient has been implied, by the fact that his chancre inflamed and ulcerated. Thus a scar-leaving eruption often follows a scar-leaving chancre.

The belief that the occurrence of rupia, or other ulcerating eruption, makes it desirable to avoid mercury and use only iodide of potassium is, I think, fast losing its hold. Although, unquestionably, mercury does sometimes disagree in such cases, we know that it is chiefly a question of dose and mode of use, and that when these are well arranged it will almost always cure.

Rupia, as a rule, is not serpiginous; it does not creep at its edges; its crusts, when typical, are always circular. The shilling-like scars which it leaves are well known. There is, however, another and an allied condition, possibly sometimes a direct consequence, in which the morbid process is allied to lupus. In this the round form of the sore is lost, for the inflammation spreads at its edges by local infection, and allows healing in the centre. Thus a horse-shoe form is assumed; or it may be that large irregular

patches with crescentic edges become involved. This disease (*rupia lupus*) may last indefinitely unless carefully treated, and it often does extend over several years. It seldom, I think, originates *de novo*, as a genuine tertiary, years after the secondary symptoms have all disappeared, but is more commonly a sort of continuation of an imperfectly treated eruption of early date. It has usually ceased to be a generalised eruption, is no longer arranged with any tendency to symmetry, and is often more amenable to local than to internal treatment. In all these features it denotes a sort of transition position.

Commentary L.

Severe syphilis ; rupia as a secondary eruption.

One of the most severe secondary eruptions which I have ever seen occurred in the case of a Mrs. R., whom I visited, in consultation with Mr. Mills, of Covent Garden. She was confined to bed, and covered from head to foot by an ecthymatous and rupial eruption. Some of the scabs were heaped up in the limpet-shell form, but smaller in size than the more typical forms of the rupia crust. She had been ill about six weeks. Her tonsils were ulcerated, and the pharynx was so sore that she could hardly swallow. She was rapidly losing flesh.

The history was interesting. Her husband had about four months before shown himself to Dr. Mills with an eruption on his abdomen and chest, which Dr. Mills at once pronounced to be syphilitic. Mr. R. denied having had any chancre, and submitted to examination, with the result that no trace of chancre could be found. He had, however, had some weeks ago a little discharge from the urethra, and redness at the orifice. Under Dr. Mills's treatment by mercury the eruption soon vanished and when we met in

consultation he (the husband) had not a trace of disease left on any part. I inspected his meatus, and could find no indications of a sore. He quite admitted having been exposed to risk, but repeated that a little redness at the meatus, lasting only a week or two, was all that he had ever had.

There was no history of primary sore in his wife. A rash was the first thing noticed, and this at first was mild, and soon disappeared under small doses of mercury with iodide. But as it was disappearing a relapse occurred, and the rupial eruption, which I have described, was developed. As regards this, Dr. Mills had thought that the treatment made it worse, and for a time desisted. There were enlarged glands in the groins of both husband and wife. The case subsequently proved most difficult of management.

These two cases well illustrate a fact of every-day experience that differences in the severity of syphilis do not depend upon differences in the virus, but upon the idiosyncrasy of the patient. How often do we see that a disease which amounts to nothing in the husband affects the wife who receives her contamination from him with terrible severity! Sometimes the reverse is the case.

Rupia as a secondary affection; subsequently lupoid ulcers and keloid scars.

I have repeatedly asked attention to the fact that rupia occurs not in the tertiary stage of syphilis, but in the secondary one; and, further, that it is apt in certain cases to slide into a lupoid affection. In such cases the rupia always comes first, and the lupus only after it has persisted for some time. I find an interesting case, illustrative of this, recorded by Mr. Balmanno-Squire in the Pathological Society's Transactions. A severe rupial eruption developed within a few months of the primary disease, and

never got quite well. Nine months after infection there was a considerable node on one tibia, which afterwards ulcerated. The man suffered most severely, and two years from the beginning he was covered with scars, some of which were in the condition of keloid, and he had also ulcers, which were lupoid in character. No details are given as to treatment.

Commentary LI.

Case in proof that rupia may occur early, and illustrating other points of interest; rupia lupus.

A young gentleman in good health, who had never before had any venereal complaint, contracted disease in the autumn of 1870. He had a sharp gonorrhœa, which was treated, and which at the end of five weeks was getting well, when the meatus urethræ, which had been very sore, began to ulcerate deeply. The chancre (for it was clearly such) became phagedænic, and the surgeon applied nitric acid, and also gave mercury. The patient took the latter only about a fortnight, when, being slightly salivated, it was left off and never resumed. The sore required much further local treatment, and did not heal for ten weeks. After it was healed the patient thought himself well for a month or two, and all treatment was laid aside. Next he had a crop of mucous tubercles on the scrotum and thighs, with sore throat. Then suddenly out came a terrible crop of rupia. The exanthem stage had probably been delayed by the use of specifics, and thus it came five months after the disease was contracted, instead of two, as it would have done had it been allowed to develop unchecked. For the rupial rash he was attended at home by a very able surgeon at Bristol, and full doses (twenty grains three times daily) of the iodide were given. He was for a time seriously ill, and was covered with large and deep ulcers. On the scalp, especially, the sores went

very deep, but they never actually laid bare the bone, and the scars which were left, although involving the entire thickness of the scalp, did not adhere to the skull. Under iodides, with various modifications, he slowly improved, and when nearly well took a voyage in the Mediterranean. Here he relapsed, and subsequently he returned home, covered with patches of ulcerating tubercles. Let us note that the severity of the rupia had now quite passed, and most of the former ulcers showed round white scars. What he now had was a kind of eruption, which occurs sometimes as a true tertiary, and not unfrequently as intermediate between the secondary, or exanthem, stage and the tertiary phenomena. It is a sort of cross between rupia and lupus. It consisted of large patches, from a crown piece to the palm of the hand, or even larger, tubercular or pustular at their borders, and healing in the centre. Sometimes these are crescentic, and sometimes circular. They are placed with irregular symmetry, their tendency to symmetry usually varying with the period since the primary disease. We might easily mistake these patches for those of superficial lupus. They are to be distinguished by observing, in those which are syphilitic, less thickening of the skin by new deposit, that the tubercles are less firm, and never glossy, that there is more tendency to form pustules, or to ulcerate, and that the horse-shoe form is very common.

The patient upon whose case I have commented above came under my care, for the first time, twenty months after his chancre. He then had numerous large scars of rupia, and many large patches of the serpiginous tubercular eruption, which I have described as "*rupia lupus*." He had no disease of the mucous membranes or throat.

Commentary LII.

Case of primary and secondary syphilis in which, under mercurial treatment, the chancre inflamed and ulcerated, and the rash assumed the form of rupia; rapid improvement on disuse of mercury, and use of iodide of potassium; history of syphilis in the father of the patient.

May 19th, 1865.—A rather delicate gentleman, aged twenty-one, contracted a chancre for the first time eight weeks ago. Whether it indurated or not is uncertain. He took mercury, and the sore then inflamed and became almost phagedænic. Mercury was continued, and matters got worse. He rapidly lost flesh and strength, and became pale and very feeble. He had swollen glands in the groin, but they did not suppurate. A month or five weeks after the chancre some spots showed themselves on his scalp. These rapidly formed sores crusted by thick scabs. The scalp was almost covered by them. Soon afterwards similar spots came out on his back, a few on his right leg, and several on his left arm. His throat now became sore, and deep ulcers with grey bases formed in the tonsils symmetrically. Still the mercury was pushed, and still he got worse. Many of the sores ulcerated and secreted freely, forming thick heaped-up scabs more or less conical (rupia).

About two months after the appearance of the chancre, and one after the outbreak of the rash, the patient changed his surgeon and his treatment. Mercury was disused, and iodide of potassium with steel was given. On this change the most marked improvement immediately ensued. The larger sores began to heal, the original chancre also improved, and his general health rapidly benefited.

I had an opportunity of examining the subject of

the above case about ten days after the change of the treatment. He was then a thin, delicate-looking man, and exceedingly pale. Some of the sores on his face and arms still showed the free secretion and large scabs which characterise rupia, but they were reported to be fast healing. Some had already almost healed. A number of new spots had appeared within a few days on the left arm, cheeks, etc., but these were merely pustules, some very small, but some of considerable size. The sores in the tonsils were nearly healed. Neither the soft palate, the pillars of the pharynx, nor the soft parts behind the pharynx had been involved. The ulcerations, although deep, appeared to have been wholly limited to the tonsils.

The rash, although general, was not accurately symmetrical. On the scalp it had been general, involving both sides. There were spots on both sides of the face (cheeks, etc.) in fair, but by no means exact, symmetry. On the shoulders I was told that the spots had been on both sides. The right arm had wholly escaped, and so also had the left lower extremity. It is to be noted, however, that, excepting on the head, the number of spots had been quite limited. Only one spot had, I think, occurred in the right thigh, and those on the left arm were not many.

We have in this case an instance of primary and secondary syphilis attended in all its stages by a tendency to suppurative and ulcerative inflammation. The original sore became inflamed, and spread, the pustules of the rash inflamed, ulcerated, spread in extent and in depth, and acquired thick crusts of secretion; the ulcers in the tonsils became deeper than usual by ulcerative inflammation. We seem to have clear evidence that mercurials aggravated this tendency to inflammation, and that iodide of potassium arrested it in a specific and positive manner. The man had no

tertiary symptoms properly so-called. He had merely acute inflammation of his chancre, acute inflammation of his rash, acute inflammation of the sores in his tonsils.

How are we to account for the fact that mercury, which usually causes syphilitic inflammations of a primary or secondary class to terminate, in this case aggravated both, causing the tissues attacked to ulcerate and suppurate? To change the name of the symptoms, and say that because iodide of potassium cured them and mercury made them worse, therefore they were really tertiary and not secondary, will answer no useful purpose; for we must observe that not only did the secondary rash assume a tendency to ulceration, but the primary sore was affected in like manner, and became deep. It would be absurd to call it a tertiary symptom, and yet the process by which it inflamed and ulcerated was precisely the same as that by which the rash, originally papular or pustular, inflamed and ulcerated and transformed itself into what is called "rupia."

Commentary LIII.

On two cases of very severe rupia occurring as a relapse after the first outbreak of secondary eruption had passed away.

There is a very severe form of rupia, in which the ulcerations coalesce over large surfaces, and the crusts thus lose the typical limpet-shell form. Of this I have seen but very few examples, and the two which have made the most impression on my memory were almost exactly alike. The violence and the suddenness of the second outbreak were in each case most marked. The first occurred to me at the London Hospital, nearly twenty years ago, in the person of a young man named K. I had treated him for a mild

attack of secondary symptoms with the usual papular eruption, and he had got, apparently, quite well. He desisted from treatment, and I lost sight of him for some months. At the end of that time he came back with a vesicular and bullous eruption just beginning on his face. In conformity with the opinion of those days that mercury ought to be avoided for such eruptions, I gave him the iodide of potassium. The eruption blazed up with extraordinary quickness, and in the course of a week his whole face was covered with crusts; there were many also on his limbs. He became extremely ill, was confined to bed for several months, and was so much emaciated that we thought he would die. At first a mixed treatment of iodide of potassium and mercury was used, and for a while it seemed powerless. Ultimately, under the influence of mercury alone, the man recovered, but with a lamentable amount of scarring. Almost the whole of his face was involved in scars, and his lower eyelids were displaced downwards.

The exact counterpart of the above case came under my observation not long ago. A young gentleman of fortune suffered from primary disease at Christmas, 1884. He had a sore, which was both exceedingly hard and deeply ulcerated. This sore healed under the influence of full doses of bichloride of mercury, leaving a deep depressed scar in the glans. In April, after about three months' treatment, it was laid aside, as the patient appeared in excellent health, and had had neither rash nor sore throat. Through the summer he remained well, but towards the end of September what he described as "a slight red rash," which lasted only a few days, occurred on the chest. So far as is known, no specific treatment was used for this. No sooner had it faded, however, than some blisters appeared about his lips, and, spreading with great rapidity, in the course of

ten days or a fortnight covered his whole face and neck. At the same time others appeared on the buttocks, and a week or two later over all his limbs. The trunk, with the exception of the buttocks, remained free. The bullæ became confluent, and heaped-up crusts, covering areas as large as the palm of the hand, were formed. The ulceration was deep, so much so that on the back of one hand the tendons were exposed. For nearly a month the disease continued to develop, in spite of the use of specifics. The patient was confined to bed, and was in the most loathsome condition. He became exceedingly emaciated. The treatment under which he finally recovered was the use of the bichloride of mercury in doses of one-eighth of a grain with five grains of iodide of potassium, the sores being dressed with a weak nitrate of mercury ointment.

When I saw him (for the first time) in the early part of December, 1885, he was still confined to the house, though not to his bed. His face, with the exception of two small patches, one in the middle of each cheek, was wholly involved in scar. The lower lids were everted and dragged down to the utmost possible extent. The alæ nasi were destroyed, and the contraction of the scar around his lips had everted the prolabia, and so fixed his mouth that he could with difficulty open it. The cicatrisation of the skin of his cheeks had so much contracted them that it made the mucous membrane bulge between his teeth, so that he bit his cheeks in eating. The scars left on his neck, shoulders, arms, and hands were very peculiar; few of them were quite round, but all were abruptly margined, and in many cases it was clear that they had resulted from a confluent group of bullæ. Most of them were slightly raised, and looked as if they were in an early stage of keloid; but I was assured that their thickness was diminishing, and not

increasing. Most of them were of a deep purple colour, but a few were quite pale. The scars on the legs were purple almost to blackness. The buttocks were covered by a great number of little button-like scars, and on these parts there were no large ones. The healing was complete on all parts, with the exception of two or three spots on the legs. The symmetry in the arrangement of the scars was almost absolute.

Commentary LIV.

On lupoid affections of the skin in syphilis.

It may here be convenient to discuss briefly the moot question as to whether there is such a disease as "syphilitic lupus." Our answer to such question must depend upon the definitions of our terms. That there are syphilitic inflammations of the skin which affect by preference the parts most frequently attacked by lupus, which spread at their edges just as lupus does, which, like it, leave scars, and which, even to those most experienced, present, throughout, features such as render it very difficult to decide whether the condition is common lupus or due to syphilis, every one will admit. These diseases, of which we have as great a variety as we have of lupus itself, are to be cured by specific treatment; and in this they differ *toto cælo* from common lupus. I fail to see that any clinical convenience is served by refusing to call these affections "syphilitic lupus," using the terms in the same sense that we speak of syphilitic psoriasis and syphilitic lichen. They are the syphilitic imitations of the typical malady. The most acute and rapidly destructive of these is what has been termed erosive lupus, an almost phagedænic affection, which usually attacks the nose, and which is more frequently seen in inherited than in acquired syphilis. Good examples of it are, however, occasionally seen in the

acquired disease, and always, I think, at a distance of more than a year, and usually of several years, after the primary disease. From this acute affection downwards we have the most varying degrees of severity in syphilitic lupus. As a rule, all lupoid affections rank as tertiary; and it would scarcely be too bold a generalisation to say that all the tertiary affections of the skin are of a lupoid character. I mean by this that all are serpiginous, all unsymmetrically arranged, and that all leave scars. We have done with roseola, psoriasis, lichen, and even with rupia; and if the skin at this stage suffer at all, it will be from a tubercular affection which creeps at its edges, persists indefinitely unless cured by treatment, and leaves scars. It is, in fact, an infiltrating and serpiginous gumma of the skin. This generalisation is a most important one, as giving us a clue to the character of the affections of the deeper parts (hidden from view) which occur in this stage. They, like lupus, may be serpiginous, the cell growth tending to infect the edge of the patch, and thus cause persistent spreading. Such a pathological hypothesis would well explain what we witness in such affections as ophthalmoplegia externa, in which we find indications of slowly spreading central disorganisation, and corresponding external paralysis, the process often going on for years. The same remark applies to locomotor ataxy, if it be admitted that it is sometimes of specific origin.

Not only are all the varieties of common lupus often closely simulated by syphilitic affections, but we have, as I shall have to show subsequently, very deceptive imitations of the conditions known as lupus erythematosus.

CHAPTER V.

COMMENTARIES ON VARIOUS DISEASES OF THE NERVOUS
SYSTEM IN CONNECTION WITH SYPHILIS.

Cases illustrating the occurrence of anæsthesia of the lower extremities in the secondary stage of syphilis ; Menière's disease ; giddiness and reeling gait ; extreme anæmia and debility ; inability to write ; doubt as to whether the symptoms were really due to syphilis ; mercury supposed to have been injurious ; complete recovery under inunction treatment.

THE following case is of great value, as illustrating the variety of nervous phenomena which may occur in connection with syphilis in its secondary stage. It also well enforces the lesson that in all obscure cases with a syphilitic history mercury ought to be pushed. The patient was at one time so anæmic and feeble that I feared he would die, and he himself believed that his debility was due to mercury. Yet this was the remedy under which, when used by inunction, his cure was brought about and his health completely restored.

It will be convenient to begin the narrative of this case in the middle, at a date when, at my request, we sought the advantage of Dr. Hughlings Jackson's assistance in consultation.

This was on January 16, 1884. At this date the defect in sensation had very much passed off. It had been greatest in the right lower extremity, although slightly present in the other also. It had been

preceded by back ache. He assured us that there had been a time (a month ago) when he could pinch the skin, or stick a pin into it, without feeling it. Now, however, although it still felt numb, he could easily feel a pinch. The improvement had occurred whilst taking mercury.

At this date he was still deaf in one ear, but not absolutely so, being able to hear a watch when placed within two inches. His ear had been examined at my request by Dr. Laidlaw Purves, who said that there was nothing abnormal to be seen. He was still much plagued with what he called giddiness, but it did not prevent him from going to business, taking journeys, etc. It was never attended by "swimming of the things in the room," and from first to last he had never had any paroxysms. It was entirely absent in the recumbent posture and when sitting still; but came on if he moved his head, as in writing or reading, and especially when rising from his chair, and in walking. It was worst on movement when in the dark. He could not well describe it, but said his head felt full, as if he must reel or fall. He was conscious of great unsteadiness in walking.

Dr. Jackson laid stress on the fact that he had no paroxysms, and that his gait was that of drunkenness; that is, with a decided tendency to reel. Our patient thought also that there was decided weakness of the right lower extremity, but on careful examination we could not prove weakness of any particular muscle. The knee jump was good, perhaps exaggerated.

We agreed that it was quite possible that the deafness was not connected with specific disease, and thought it probable that his reeling was wholly in association with the ear. The numbness of his lower extremities Dr. Jackson was inclined to attribute to spinal meningitis.

We thought it not improbable that the coincidence

of phenomena was accidental. Our patient, however, insisted that his head symptoms had become worse at the same time that his legs became numb.

The previous history of the case was briefly this. Mr. T. was a gentleman, aged forty-eight, under the care of Mr. R., of K., by whom he was first brought to me on May 8, 1883.

He had had specific disease complete, beginning in August, 1882. He was treated with mercury and iodides, and it was whilst still under treatment that his giddiness began in February. First, under the impression that the treatment disagreed with him, he was sent on a voyage to the Cape. He returned better in health, but still giddy. The giddiness had come on rather suddenly, but not with any great severity, and about the same time he became deaf in the left ear. He suffered at this time from a distaste for food and a feeling of sickness, but he had no pain in his head. This was all before I saw him. When I saw him for the first time on May 8, he was so thin and pale that I suggested that he was passing into malignant anæmia. We gave him mercury, and he improved both in general health and as regards local symptoms. In the beginning of the next November, my notes state that he had then left off treatment for six weeks, that he was quite deaf in the left ear, but nearly rid of his giddiness. He complained much of his hand trembling, and said that he was obliged to give up writing his own letters. In December he relapsed, and began to complain of the numbness in his leg, as previously stated. We decided, after the consultation with Dr. Jackson, to push mercury by inunction.

Mercury was subsequently freely used, and the patient recovered perfectly, with the exception of slight persisting deafness. He lost his giddiness, became able again to write easily, and regained his colour and strength.

At the same time that I was attending Mr. T., I had also under care a young medical man, Dr. R., who had exactly the same symptoms, so far as the lower extremities were concerned. He had numbness of both, but chiefly, if I remember rightly, of the left. He complained that the limb felt numb and heavy, and that he could pinch the skin without feeling it. The interval was about the same as in Mr. T.'s case, that is, a little more than eighteen months. The numbness almost wholly disappeared under specific treatment, and he is now in good health.

Commentary LV.

Case of paraplegia occurring two years after syphilis; iodide cure, partial restoration; no relapse during six years.

Some years ago a lady and gentleman brought to me their son, a boy of ten, on account of inflamed eyes. The mother reminded me that she had herself consulted me two years before, for a sore in her throat; and that I had then inquired particularly as to whether her children had any of them suffered in their eyes. My treatment, she added, had quite cured her throat. I turned to my notes of her case, and found that I had diagnosed her throat as syphilitic, and had prescribed accordingly. Now that her husband and son were before me it seemed a good opportunity to verify the diagnosis, and get the family history, which on the first occasion, when the lady only was present, I had not ventured to inquire about. I looked at the boy's physiognomy and teeth; but there was nothing suspicious in either, and on examining his eye I found no evidence of interstitial keratitis, but only a superficial ulcer. Having sent the boy and his mother out of the room, I put some questions to the father. I had observed that he walked with a stick, and with a very

awkward gait, as if partially paraplegic. His gait was not that of locomotor ataxy, but his legs dangled as if loose, and he had evident difficulty in managing them. He at once admitted that his medical advisers, among whom had been two or three of our most distinguished specialists, had attributed his paralysis to "venereal taint." He had contracted syphilis during his married life, and *since the birth of his boy*, the date being almost eight years ago. No children born since had lived. Thus the escape of the boy was at once explained, and the diagnosis of specific disease in the mother at the same time confirmed.

I was next much interested in extracting what facts I could as to the paraplegia in the husband. It appeared that the first indications of disease in the spinal cord had consisted of pain in the back, which occurred almost exclusively in the night. For this pain he consulted many physicians, and could get no relief. Next his legs began to get weak, and he had difficulty in holding his water. At length almost complete paraplegia set in, and he was confined to bed with inability to use the lower limbs, and incontinence of urine and fæces. Dr. Radcliffe was the first to diagnose the syphilitic nature of the disease, and to prescribe the iodide. After two months in bed he slowly recovered up to his present point, and for some years past had remained in his present condition, able to walk about, but obliged to wear a urinal, and quite without sexual power. There had never been any brain symptoms; the pupils still acted well, and the general health was good. The lower limbs were liable to occasional reflex spasmodic movements. For some years he had taken no medicine, and there had been no tendency to relapse. Thus it will be seen that the paraplegia set in about two years after the primary symptoms, that it was preceded by pain, that it involved motion rather than sensation, and that it had implicated the sphincters.

When we add that it showed no tendency to spread upwards, and that no other parts of the nervous system had been affected, I think it may be conjectured that probably a meningeal gumma pressed upon the spinal cord. Had it been any form of chronic myelitis, the paralytic symptoms would have been less definitely restricted, and would probably have shown tendency to spread. The recovery under specifics confirms the diagnosis of syphilis, and it is of great importance to note that the recovery, although only partial, appears to be permanent. I have in many other cases observed this, and hold that a cure of syphilitic nerve disease, when brought about by specific treatment, may with considerable confidence be expected to be permanent. There is a wide-spread suspicion to the contrary, and that such cures are usually only temporary. Especially have cures by the iodide of potassium been held untrustworthy, and by some this drug is accounted a "false friend," as compared with mercury. My own belief is that everything depends upon the extent to which the drug is pushed. If you leave off before the morbid process is arrested, it will to a certainty relapse; but if the local cure is at the time complete, there is good reason to expect that it will be permanent. It does not matter much whether the cure is brought about by the iodide or by mercury. There may be, and often are, other reasons for giving preference to one of these over the other, but the question as to permanence of the cure is not usually one of them. The iodide is in many persons, probably in most, less efficient than mercury, and may often fail to complete a cure, and in such cases you will get relapses. I could produce, however, a large body of evidence in support of the assertion that many cures of severe forms of syphilitic disease, whether of the nervous system, of the skin, or of other parts, when once completed by the iodide are permanent. I have

under observation many such patients, whom I have watched for a series of years after the cure.

Commentary LVI.

Case of paraplegia beginning about two years after syphilis ; recovery under mercury ; partial restoration ; optic neuritis of one eye only, ending in blindness ; no relapse during twenty years.

I have another case of much interest to relate which again bears important evidence as to the prognosis of certain cases of paraplegia. It is to a considerable extent parallel with the preceding. A gentleman of fifty was sent to me for an eruption which was only pityriasis versicolor. I observed that he was partially paraplegic, his legs dangling loosely, although he could both stand and walk. I got him to tell me the history of his former illness. It was this. Before his marriage he had some venereal sore, and was treated by mercury and iodide, but he could not remember having ever had any symptoms excepting the local ones. No reminders of any kind ever occurred, and he married about two years afterwards. So indefinite was his remembrance of it, that it might even be considered doubtful whether he ever had syphilis. Before allowing him to marry, however, his surgeon put him through a fresh course of the iodide, so that we may believe it probable that this gentleman considered that there was true syphilis. This was in 1851.

The marriage took place, and all went on well for some time when, in consequence of his wife's illness whilst they were travelling in Norway, he had a good deal of anxiety. The weather was also oppressively hot. Under these conditions the right leg became a little weak, and then suddenly one morning on rising he found that he had lost sensation in both. In this

condition he was brought home, and put under the treatment of one of the most eminent physicians of the day. So far as he knows, no suggestion of syphilis was ever made, but mercury was given to salivation. He was three or four months confined to his room and couch, and during the early part of this period had incontinence of urine and fæces, and entire inability to feel in the lower extremities or to move them. Recovery was gradual, and he finally became able to walk as he does now, and to retain his secretions. After about six months no further pain occurred. He could walk with a stick slowly, his legs swinging loosely as at present. His bowels have ever since been obstinately costive, and his bladder acts slowly and often not efficiently. Sexual power has been permanently lost. The upper extremities were never affected, and he has had no other definite nerve symptoms excepting failure of the left eye. This eye became blind, he thinks, a year or two after his paraplegia, and he has now no perception of light in it. It diverges.

! Thus it will be seen that our reasons for suspecting syphilis are the history of the primary symptoms, and the similarity of the attack both in onset and recovery to what we have witnessed in other patients in whom syphilis was certain. The occurrence of paraplegia six months after marriage gives rise to a suspicion in another direction, and I inquired on this point as to my patient's own impressions. He did not believe that such was the case, and added that up to the time of its occurrence he had always been very strong, and accustomed to very vigorous exercise. His appearance quite bore out this statement, for excepting his paraplegia he appeared to be in very good health. There had never been any ataxic symptoms, and the pupil of the sound eye still acted well. He had formerly been troubled with muscæ, but had never had any definite cerebral symptoms.

Here, then, we have another example of paraplegia recovered from up to a certain point. Twenty-six years have elapsed since the attack, and during that time there has been no relapse whatever. On the other hand, there has been no progressive improvement, the limbs having remained in almost the same condition as they were six months after the attack. In reference to treatment we may note that the recovery occurred whilst under the influence of mercury. Subsequently for eighteen months various forms of galvanism were used, but without material benefit.

Commentary LVII.

Disease of the spinal cord, with paraplegia in the secondary stage of syphilis; death and autopsy; extensive occluding disease of the arteries of the spinal pia mater.

I extract the following case from Dr. Hilton Fagge's "Practice of Medicine."* It gives us a good example of paraplegia occurring in the secondary stage of syphilis. Its chief value, however, consists in the circumstance that an autopsy was obtained, and extensive disease of the vessels of the cord proved to be present. The softening of the cord appeared to be secondary to this arterial disease.

"A man, aged twenty, was actually under treatment by Mr. Davies-Colley for syphilis when he became paraplegic, and was transferred to the care of Dr. Wilks. He died two months later. The cord in the mid-dorsal region was flattened and soft, for about an inch and a half of its length; the antero-lateral columns, and the grey matter, etc., were especially affected, the latter being of a rusty-brown colour. To the naked eye there was no obvious change in the pia mater.

* Vol. i. p. 398.

But when a piece of it, corresponding with the softened part, was placed on a microscopic slide, and examined with a lens, the walls of the arteries were at once seen to be enormously thickened and degenerated. By reflected light they looked like solid, opaque, white cylinders; by transmitted light their tissues appeared black. Neither Dr. Goodhart nor I could find any in which the affection was in an earlier stage, so that we might have compared it with that of which Heubner has given so complete a description, as occurring in the cerebral arteries. I think it is very likely that many cases, such as have hitherto been supposed to be examples of softening from syphilitic myelitis, may hereafter be traced to the defective blood supply consequent on a syphilitic affection of numerous vessels in the spinal pia mater; and it may be that the same lesion will be found to account for those other cases in which, as yet, no morbid change whatever has taken place."

Commentary LVIII.

Paraplegia in syphilis.

Although I have seen a great many cases of syphilitic paraplegia, I have never in a single one had an opportunity for a post-mortem. This fact says much for the efficiency of treatment, but it also leaves us in great uncertainty as to the pathological anatomy of the various conditions which go under this name. My impression is strong that many of them are due to central changes of the nature of polio-myelitis, and that we are in the habit of suggesting meningeal disease (pachymeningitis), much more often than it exists. The symptoms are often extremely difficult of interpretation, and it curiously happens that some of the autopsies which have been recorded leave us in greater perplexity than before. In one case (above

quoted) Dr. Hilton Fagge found extensive disease of the small arteries of the spinal pia mater.

In some cases the motor function suffers chiefly, and in others the sensory; but in many both are involved, though not equally. It is seldom that one limb alone is implicated, but very common for one to take precedence, and be throughout more severely affected than the other.

Pain in the back, across the lumbar region, is an almost constant symptom in the early stage, and has been supposed by some to imply meningeal mischief. Its value in this direction has probably been over-rated, for we know that in other affections extreme pain in the back on motion may be present, whilst there certainly is no meningitis.

When either sensation or motion fails alone, and over a large area, and especially if both limbs are affected, it is more probable that the condition is central than that it results from pressure on the nerve roots.

When both sensation and motion fail together, and in a limited and definite area, the inference is, of course, easy that there is pressure on a nerve trunk after the roots have joined, or upon both roots. This condition is, however, rare. It may imply simply a local neuritis.

In severer cases, where motion is implicated, the sphincters almost always suffer.

In my experience cases of syphilitic paraplegia almost always recover, but much weakness of the back and limbs remains. The recovery is usually permanent.

Cases of syphilis, in which severe pain in the head precedes brain symptoms, are probably almost invariably meningeal if not actually osteal. The conditions due to arterial disease are, I think, not often painful. On the contrary, with pachymeningitis or

internal periostitis, the nocturnal pain is often very severe indeed. In some cases it even overpowers consciousness to some extent, and makes the patient heavy and somnolent (Buzzard).

I have recorded in the Pathological Society's Transactions a case in which, in association with large meningeal gummata, the pain had been terribly severe, and had even induced stupor. In another case, a man who had for long been under my treatment for syphilitic osteitis, with great thickening of one femur, began to complain of his head, and after two or three weeks of great suffering died unconscious. I did not see him during his last illness, and do not know the details, but from the severity of the pain described I have no doubt that he had osteitis with effusion, possibly a suppurating internal node.

Commentary LIX.

Cases of ascending spinal paralysis (chiefly motor) at different stages of syphilis.

Dr. Buzzard, in his most interesting "Lectures on Diseases of the Nervous System," adduces several cases in which there was a tendency to universal spinal paralysis in connection with syphilis. They occurred at very different periods of the disease.

In one, which ended fatally in a fortnight (quoted from "Brain," by Dr. Arthur Fox), only a few months had elapsed since the primary disease. Death followed a very rapidly aggressive ascending paralysis, in which the motor function was chiefly involved. The autopsy disclosed no visible lesion, but it was probable that myelitis was present. In another (from Wagcrof) the patient, under mercurial inunction, recovered from an acute and very threatening attack, which occurred five years after the syphilis. It was motor paralysis only. In one, under Dr. Buzzard's own care,

the intermediate period was no less than twenty-eight years. In this case, as might be expected, the symptoms had been somewhat more gradual in their development; motion had been chiefly affected. They disappeared to a large extent under treatment.

In another case (by M. Taffe) a young man became paralysed as regards motion six months after his syphilis, and died through failure of respiration muscles on the tenth day. Unfortunately there was no autopsy. (See Commentary xxxviii.)

Commentary LX.

Sunstroke frequently simulated by syphilis.

I have long been accustomed to remark that the common cause of "sunstroke" is syphilis. It is not meant that the severe and often fatal attacks which are so styled are usually due to that disease, but rather that of those who return to England, and report that in India or elsewhere they have suffered from "sunstroke," a large majority are the subjects of syphilis. Attacks of cerebral paralysis from syphilitic disease of arteries very closely simulate sunstroke, and receive its name. Concerning such I find that Dr. Buzzard writes: "I have reason to believe that they often represent 'the brain-fever' and 'sunstroke' of the public." I can myself thoroughly corroborate this impression.

Commentary LXI.

Cases of cerebral derangement, mania, etc., after syphilis.

A few cases occur in which mental derangements of a more or less acute kind appear to be in connection with syphilis. A young man was once brought into the London Hospital by the police in a

state of mania. He had been breaking windows in the street, and was quite unable to give any account of himself. He would not answer any questions, and was so violent that restraint was necessary. He had a fœtid discharge from his nose in connection with diseased bone, evidently of a syphilitic character. We ordered him full doses of iodide of potassium, and with excellent results. In the course of a few days his mind was quite clear, and we then learned that for some time he had been suffering severely from headaches.

I saw, with Dr. Rogers, of Shadwell, a young woman who had suffered from syphilis a year previously. She had, during the week preceding our visit, passed into a state of dementia. She had a vacant aspect, and rarely answered questions. She appeared weak in all her limbs, but was not paralysed in any. She could just manage to walk across the room, but in a feeble, purposeless manner. There was no optic neuritis. The mental state was the chief ailment. Knowing her antecedents, we ordered mercury and iodide in combination. Six weeks later I heard from Dr. Rogers that she had, under this treatment, soon recovered the use of her limbs, and to a large extent that of her reason also. I believe that she recovered perfectly in the end.

The most plausible suggestion respecting these cases probably is, that the symptoms were due to local congestions of the pia mater with some slight effusion. It is not improbable that such cases may end after perhaps a long interval by developing what is known as general paralysis of the insane. This disease, which is much more frequent in men than women, is well known to often occur to those who have had syphilis. It is a common form of insanity in most of our asylums, but is curiously nearly unknown at the York Retreat, an institution which receives almost

exclusively members of the Society of Friends. Its pathological anatomy is usually adhesion of the pia mater to the cortical substance over large areas.

Commentary LXII.

I find an important case, illustrating the slowly developed results of arteritis of the cerebral vessels, recorded by Dr. W. Anderson. I have condensed the narrative into the subjoined tabular form, which will sufficiently explain itself. No details are given as to the extent to which the specific treatment which is mentioned had been pushed. The case is exceptional as to the mode of death, but in other respects is probably an illustration of what is common.

Case in which liability to headaches on mental exertion came on four years after syphilis, and persisted for two years, with mental dulness approaching insanity; final illness preceded by facial paralysis and hemiplegia; obliterative arteritis of the basilar and right middle cerebral.

Case recorded by Dr. William Anderson in the Pathological Transactions for 1881:

Age.	Date.	
29 ...	1st year ...	A hard chancre and secondary symptoms, which wholly disappeared under the usual treatment.
30 ...	2nd ,, ...	Quite well.
31 ...	3rd ,, ...	Quite well.
32 ...	4th ,, ...	Quite well.
33 ...	5th ,, ...	Began to complain of headache and loss of memory. Dull pain in temples, and mental confusion. Made worse by mental exertion, and relieved by bodily exercise.
34 ...	6th ,, ...	The head symptoms persisted. Headaches worse. Manner reserved and suspicious. Specifics used without much result.

Age. Date

35 ... 7th year ... Suddenly attacked by partial facial paralysis. Confusion of ideas. Manner surly. Partial left hemiplegia. Dull pain in right side of head. Six days later fell partially insensible, with complete left hemiplegia. Temporary recovery. Relapse a fortnight later. Death in coma after tetanic spasm. *Ovisthotonos*. Hyperpyrexia.

Autopsy.—Dense nodular thickening of the coats of basilar artery, and in less degree of right middle cerebral. The changes were characteristic of syphilis, and involved all the coats, but in some parts especially the intima, and in others the media and adventitia. No gummatous formations within the skull, nor other changes excepting superficial softening near the right island of Reil.

Dr. Anderson writes: "The revelations of the post-mortem fully accounted for the symptoms up to a certain point. The headache, excited only by mental effort, coincided with the gradual narrowing of the basilar artery, which prevented the free influx of blood demanded by active brain functions. The impaired memory, etc., are to be explained by the same cause. The final paralysis and subsequent well-marked hemiplegic attack are attributable to the plugging of the middle cerebral artery. It is admitted that the cause of the tetanus, the hyperpyrexia ($103\cdot8^{\circ}$) and death are more difficult to prove. There was no examination of the viscera of the body."

Commentary LXIII.

Death from cerebral thrombosis in connection with syphilis.

Dr. Bristowe, in 1864, recorded the case of a man, aged twenty-seven, who had for four years suffered

from relapsing symptoms of syphilis. He was finally, without much warning, attacked with pain in the head and giddiness, and lost the use of his right arm and both legs, without loss of consciousness. Three weeks later he again complained of pain in the head, and suddenly became insensible, and ten days after this he died. In addition to a cavity in his left corpus striatum, which probably accounted for his first attack, his right middle cerebral artery was completely plugged by a decolorised clot. There was no heart disease or other obvious source of embolus, and Dr. Bristowe suggests that the thrombosis was due to syphilis, although the artery does not appear to have been specially diseased.

Commentary LXIV.

Case of meningitis after syphilis; recovery; attack of aphasia; a year later threatened paraplegia.

In the following case an attack of brain disturbance, supposed to imply meningitis, occurred six months after syphilis. Mr. R., aged twenty-seven, had a complete but mild attack of syphilis in the early part of 1883. Treatment had been laid aside for some time, when, in November of the same year, he began to suffer from severe headaches. These ended in delirium and mania, and he was in bed a month with severe head symptoms. He was seen, in consultation, by Dr. Hughlings Jackson, and meningitis was diagnosed; but as he had been living freely, it was doubted whether syphilis was the sole cause. Recovery took place under large doses of iodide of potassium. After his illness, it was found that he had lost flesh to the amount of four stones. He continued during the summer very weak, and in September had an attack of aphasia, with numbness of the right hand. These symptoms came on rather suddenly one morning after

breakfast, but he had for some time before had headache. At this time he was brought to me. I advised inunction, and under this treatment his head discomfort and the paresis cleared off completely. I was consulted again fifteen months later, on account of weakness of the lower extremities. Mr. R. was now in good health, had got up his weight again, and suffered nothing in his head. His memory and judgment were, he said, as good as ever. The weakness of his legs was chiefly experienced when he attempted to dance. He could stand and walk fairly well, but if hurried or jostled felt unsafe. He walked with a certain degree of uncertainty, and always preferred to use a stick. He said his back felt weak across the loins. His knee jump was excessive, and his pupils acted well. I advised that he should again use mercurial inunction. There was no numbness in his legs, and he had no trouble with his bladder or bowels.

Guided by the light of subsequent events, and the influence of treatment, we can, I think, have little doubt that the severe brain illness which occurred six months after the syphilis was really due to it. It is to be observed that he never had either iritis or retinitis.

Commentary LXV.

On ophthalmoplegia interna.

In 1876, in a paper read before the Medico-Chirurgical Society, I described a condition to which I gave the name ophthalmoplegia interna. In it all the internal muscular structures of the eye-ball are involved, and the patient loses the power of accommodation, and has a perfectly motionless pupil. Of the iris, both the radiating and the circular fibres are paralysed; thus the condition differs from that known as the Argyll-Robertson pupil, in which the pupil is insensible to light, but contracts upon convergence in the effort at

accommodation, while the function of accommodation is not lost, and in many cases not even injured. This latter condition is now well known to depend upon central changes, and to be part of the disease which we recognise as locomotor ataxy. My reason for mentioning "ophthalmoplegia interna" here is because it has appeared to be connected in a majority of cases with syphilis. When I published the paper, although I was aware that it sometimes preceded locomotor ataxy, and that there were reasons for thinking that in some cases it was of central origin, yet I thought that the most probable explanation, of the majority of cases, was that it depended upon peripheral disease, that disease being located in the lenticular ganglion. This view was subsequently controverted in an able paper by Dr. Allen Sturge, who referred it exclusively to central disease. Some of my patients had obtained benefit from specific treatment, and although in several of the series I was not able to obtain any definite history of syphilis, I was yet strongly inclined to suspect it in all.

My experience of this curious combination of symptoms since my paper was written has not materially altered my views as to its cause, or its value for prognosis. Although in a certain number of cases it has been introductory to ataxy, in the majority, although the patients have remained long under observation, no such consequences have followed. Although I have had no opportunity of confirmation of my conjecture, as to the lenticular ganglion being involved, by post-mortem dissection, that still seems to me the most probable hypothesis in the majority of cases, and I still hold a strong opinion that the chief cause to which it is due is syphilis.

I will condense from my paper, and from other notes, a few illustrative cases :

A woman, named T., was under my care, in 1869,

having experienced sudden loss of accommodation in both eyes. Her pupils were of medium size, and almost motionless. She had been under my own care four years previously for syphilis. The symmetry of the disease in this instance probably points to a central cause.

A clerk, aged thirty-four, was under my observation from 1865 to 1868, his ailment being progressive failure of the internal muscles of the eye. He had had mild syphilis some years before, and I treated his eye symptoms with specifics. I am not aware that he ever developed any other indications of ataxy. At the time of my last note, in one eye ophthalmoplegia interna was complete; but in the other, although iridoplegia was complete, the function of accommodation was not lost.

In another case an unmarried servant girl, aged twenty-seven, was the patient. In her the disease had been in progress six months, and was advancing. The condition was complete in the left eye, but in the right a certain amount of accommodative power remained. She had no other symptoms of disorder of the nervous system. Although I did not obtain any history of specific disease, yet I treated her with the iodide of potassium, and during a three months' course of this drug she obtained some benefit.

A veterinary surgeon, aged thirty-six, in whom there was a clear history of syphilis eight years before, presented the disease in a symmetrical form, but it was not absolutely complete in either eye, since he could accommodate feebly. He had had stabbing pains in his limbs, and it appeared likely that his case would end in ataxy.

The above cases are sufficient to afford fair illustration of the condition described. It is not improbable that had I been able to follow the patients to yet longer periods the sequel might prove the development

of ataxy in more than I at present suspect. Whether a history of syphilis be present or not, I have no hesitation in recommending an efficient course of mercury in all cases in which "ophthalmoplegia interna" is diagnosed. Especially is it important if the symptoms are of recent development.

Commentary LXVI.

On ophthalmoplegia externa.

The term ophthalmoplegia externa has, I believe, been used by many authorities, especially by those on the Continent, as applicable to all forms of paralysis of the external ocular muscles. It might, however, perhaps, be convenient if it were restricted to cases which showed a tendency to become generalised, and in which, at any rate, the muscles of more than one nerve were involved. The distinction is arbitrary, and simply for clinical convenience; but it is obviously quite easy to designate the failures of single nerves, as paralysis of the sixth, third, fourth, etc., as the case may be, leaving the larger term for use in the very peculiar group of cases in which many muscles are involved, and in which there is a tendency to symmetry. It was in this sense that I employed the term in a paper read before the Medico-Chirurgical Society some years ago. The symmetrical and generalised cases differ very much from those of single nerves in their clinical course. They are usually slowly, steadily aggressive, whilst those in which single nerves are affected are often easily and quickly cured by either iodide of potassium or mercury. They are, as is well known, very often the precursors of locomotor ataxy. Although, as I have just hinted, ophthalmoplegia is difficult of treatment, and frequently aggressive, in spite of remedies, yet there is good reason for believing that it is usually of syphilitic origin. Although not cured, it is almost

always benefited by specific treatment, and there cannot be the slightest hesitation in saying that either the iodide or mercury ought to be used in efficient doses whenever it is threatened. The only case which I have ever been able to trace to its fatal conclusion resulted, after a course of six or seven years, in general paralysis.

In this instance specifics were not used continuously, because the man persistently denied all syphilitic history. In confirmation of his denial he brought to me two of his sons, who were in every respect well developed. It was only just before the man's death that an accident placed his eldest daughter under my observation, and gave me the opportunity of recognising her, from both teeth and keratitis, as most unquestionably the subject of inherited taint. This case is given in detail, with several others, in the paper to which I have referred. Since that paper was published, I have met with several other very remarkable examples of the disease, and with, I think, but two exceptions, all the patients had suffered from syphilis. In one of the exceptions referred to, a man, under the care of Mr. Waren Tay, in whom there was no reason for suspicion in that direction, presented the condition of ophthalmoplegia externa in both eyes, as the direct consequence of a severe injury to the head. In another case, that of a young lady under the care of the late Dr. Moxon, no cause whatever could be assigned.

In one very interesting case the symptoms began within a few years of the attack of syphilis, drooping of one eyelid being the first. No diagnosis being made, and little or no treatment being adopted, the condition slowly advanced, almost wholly without complications, during a period of twenty years. At the end of this time the gentleman still remained in good health, but his eye-balls were almost motionless, and the upper eyelids drooped so as to nearly cover them.

Commentary LXVII.

On ataxy in connection with syphilis.

A medical friend related to me the following item of experience on this subject. When house-surgeon at the Lock Hospital about five-and-twenty years ago, he treated three of his friends, all of them medical students, for syphilis. All took iodide of mercury, and got well. All three enjoyed a long period of good health, but at the present time all three are the subjects of ataxy. In two the first symptoms showed themselves about twenty years after the syphilis, but in the third not till nearly four-and-twenty. None of these three gentlemen had married, and all were believed to have lived fairly healthy lives, not having exposed themselves in any special manner to the exciting causes of the disease. As these were the only syphilitic patients whom my friend had been able to keep in view through life, the occurrence had naturally made a great impression on his creed.

Dr. Mortimer Granville has mentioned to me a case in which a medical man is the subject of ataxy many years after syphilis. The woman from whom he caught the chancre is also now in the same stage of the same disease.

Commentary LXVIII.

Case of syphilis in which ataxy was threatened ; on the paralysis of single muscles of the eye as indicative of syphilis

The following case may instructively illustrate the threatening of locomotor ataxy in the tertiary stage of syphilis : A gentleman, Mr. W., æt. 49, was sent to me from Wales, on account of an ulcer in his palate. I saw him on Christmas Day, 1883. The bone was

exposed, and a portion subsequently came away. There could be no doubt that this was syphilitic, and under iodoform and iodides, after removal of the dead bone, sound healing took place. It was eighteen years since the attack of syphilis, and during this long interval Mr. W. had enjoyed excellent health.

Eighteen months later Mr. W. noticed that his left eyelid drooped, and he came to London to see me about it. It gave him no inconvenience, and none of his eye muscles were defective. His pupils acted well, but the patellar reflex was absolutely lost. He could not walk well with his eyes shut. He had no characteristic pains. I again ordered mercury and iodides, and four months later the ptosis had almost disappeared, and he could walk much better. The knee jerk was still absent.

It will be seen that the ataxic symptoms were irregular and incomplete. The fact that a gumma of the palate had occurred two years before makes it very probable that his tissues were beginning to yield to syphilitic changes, and strengthens the suspicion that the nerve symptoms were due to that cause. The effect of treatment supports this view.

The case is not a rare one, but, on the contrary, one of many. Long before we were familiar with ataxia, it was usual to suspect syphilis whenever the upper eyelid drooped, or any of the eye muscles were paralysed. Usually in such cases specific treatment was successful. We now know that ptosis occurring under such circumstances is usually a part of ataxy, or a precursor of it, and the old creed as to cause may fairly be quoted as an argument in favour of the belief that the latter is itself of syphilitic origin. It is not a little remarkable that these attacks of ptosis, whether with paralysis of recti muscles or not, were usually curable. In a great majority of cases the patient got well, and I think the symptoms seldom returned.

When many of the recti muscles are involved at once, and especially if the affection is bilateral, then the prognosis is more grave. The curability of ptosis, when it precedes ataxy, is in remarkable contrast with what we know of loss of sight from implication of the optic nerve in the same disease. This almost always progresses, in spite of treatment, and results in permanent blindness.

We may note it as a curious clinical fact that, whilst ophthalmoplegia externa is almost invariably syphilitic, no one has as yet connected either glosso-labio-pharyngeal paralysis, or any other of the various forms of progressive muscular atrophy, with that cause.

Commentary LXIX.

On the connection between locomotor ataxy, general paralysis of the insane, and other chronic and aggressive disorders of the nervous system with syphilis.

If we inquire as to the bond of connection which exists between syphilis and such chronic affections of the nervous system as locomotor ataxy and general paralysis of the insane, we shall probably have to reply that it predisposes to them rather than actually causes them. In some cases it may perhaps be the active and sole cause, and, in such, specific treatment may be of great and definite benefit. In the majority, however, the other ordinary exciting causes have intervened and taken a large share in the realisation of the malady. In such we must not expect much result from the antidotes for syphilis. The way in which syphilis predisposes is, perhaps, by causing damage to the tissues by transitory attacks of inflammatory congestion during the early or secondary stages of the disease. Although recovery from these may appear to be quite perfect,

yet we may readily grant that it possibly never is so absolutely. The tissues which have been so affected remain ever afterwards more prone to take on low forms of chronic inflammatory disease, or even of primary degenerative changes, than they otherwise would have been. Thus, when the disease occurs, it may differ, in no appreciable manner, from other cases in which there were no syphilitic antecedents. There may also be the usual history as to ordinary exciting causes. In general paralysis of the insane, over-mental work, anxiety, and trouble are the usual means of evoking the disease ; whilst in locomotor ataxy, sexual excess, over-fatigue of the limbs in walking, etc., and exposure to cold and damp, stand in a similar category.

I was once made acquainted with the facts of a case of general paralysis, which seemed to well illustrate the remarks just made. A married footman, the father of healthy children, and who had for years enjoyed excellent health, became depressed in spirits on account of money losses, which were quite inadequate to such result. He went from home, got better, and then had a period of slight elation. During the next year or two he was fairly well, but liable to sudden seizures, which affected his tongue, and deprived him for a few minutes of the power of speech. Next came a three weeks' attack of mild mania, which ceased when his gums were touched by mercury. After this he remained in a state of mental feebleness, and suffered for long from most distressingly excessive flow of saliva. Another attack of mania consigned him to an asylum, and there he died, with all the usual symptoms, about five years after his first indications of mental disturbance. The pia mater was found adherent over large areas. There was in this case the history of complete syphilis about a year before his marriage, and six or seven years before he

began to be ill. There were, however, never any definite indications of taint during his long illness, and the course of his malady was, I believe, much according to the usual type. It was diagnosed without hesitation as general paralysis of the insane by all the specialists who saw him. The immediate benefit obtained on one occasion from mercury was most definite. Nothing would have been suspected as to the syphilis had he not, when delirious, frequently accused himself, and named the surgeon who treated him. The cure, which was by mercury, appeared to have been, in the ordinary sense of the word, complete, for he had never had a single reminder, and his children had never shown a suspicious symptom.

I have adduced the case because it is, I believe, a good example of what is very common. There are thousands of patients in our lunatic asylums in whom there is a closely parallel history. Some will incline to say that probably the syphilis had nothing to do, in any way, with the cerebral malady. That the latter never assumed any definitely syphilitic features must be admitted; still I am by no means convinced that it would have happened had syphilis been absent. Syphilis had left the tissues vulnerable.

Just the same kind of argument is to be held, I think, in reference to the very numerous cases of locomotor ataxy which we meet with in men who have had syphilis. My own experience is, of course, untrustworthy; but, according to it, we scarcely ever see ataxy in those who have not. Yet in a large majority of these cases other well-known causes, such as sexual excesses, over-fatigue, exposure of the lower extremities to cold, have also been possibly influential. Nor does a syphilitic treatment, although almost always beneficial, really cure the disease. Nor, as a rule, are there present any other indications of lingering taint. The patients are ataxic, and the malady

progresses usually just according to the type form of that disease, when occurring independently of syphilis. Almost invariably the patient has passed many years since his disease, and has often been during the interval in excellent health. We know well that syphilis may, after long periods of quiet or latency, cause meningeal or visceral inflammations, gummata, etc. ; but they occur almost always in an irregular and unsymmetrical manner, develop more or less rapidly, and may be cured by specific treatment. It is somewhat contrary to rule, and to expectation, that it should in this late stage produce an orderly and slowly aggressive systemic and symmetrical malady such as ataxy. Yet we may remember that it would appear to be almost the sole cause of ophthalmoplegia externa, a not wholly dissimilar malady, and sometimes a concomitant. The explanation of the difficulty is probably this, that the disease is really excited by other causes, but that it develops with greater ease, and, when once set going, proceeds to far greater lengths, in those whose tissues have been damaged by syphilis than in others.

Dr. Buzzard has a well-reasoned chapter on the relation of syphilis to ataxy. He holds that specific treatment is valueless, or even hurtful. In this conclusion, however, he is not supported by Fournier or Charcot. My own limited experience would have led me to believe that both mercury and iodide often do great good. It is admitted that ataxy is infrequent in women, and extremely so in those of the better classes.

Commentary LXX.*Ophthalmoplegia externa in connection with inherited syphilis.*

I do not recollect more than two instances in which I have observed ophthalmoplegia externa as a result of *congenital* syphilis.

One of these occurred in a woman whose case I shall relate, in whom it was quite possible that there was acquired taint as well, but in the other there was no suspicion of this. The following is a brief abstract of the second of these cases. The patient, Abraham F., was aged sixteen when I saw him. Both his eyeballs were almost fixed, and the upper lids drooped. By effort he could, however, lift the lids, so as to expose almost the whole of the cornea. All the recti muscles were involved in paralysis on both sides, but on both the external rectus suffered rather less than its fellows. He was quite blind, with white atrophy of the optic nerves, his sight having failed at the age of thirteen. He had characteristic teeth. An elder brother, who came with him, showed no signs of inherited taint. During the progress of the ophthalmoplegia, which had been gradual, he had been under the care of Dr. Liebrich, Mr. Bader, and Dr. Hughlings Jackson. There were no indications of aggressive nervous disease. The lad was intelligent, and, although without sight, was able to travel alone by omnibus to his classes at the blind school.

Atrophy of the optic nerve, secondary probably to neuritis, is an occasional concomitant of ophthalmoplegia externa. It is of bad omen, as indicating the probability that the disease is likely to involve other parts of the nervous system.

Commentary LXXI.

Hemiplegia probably from arterial disease in a young child; epilepsy, two years later, chronic choroido-retinitis.

As already noted, it is not common to have indications of arterial disease (or the occurrence of cerebral paralysis, presumably in such connection) in cases of inherited syphilis. Dr. Barlow has, however, proved that the arteries are occasionally affected even in young children. In the following very exceptional case the cerebral attack was similar to what we frequently witness in cases of acquired disease. The patient, who was sent to me by Dr. Mitchell Clarke, of Bristol, was a little girl of five years of age, whose mother had died of constitutional syphilis. She was of decidedly feeble intellect, but could talk well. Her head was large. Her sight was somewhat defective, and the optic discs were pale and waxy, there being extensive changes consequent on choroido-retinitis, and much resembling those of retinitis pigmentosa. The history was, that at the age of three she had suffered an attack of paralysis (right hemiplegia); nine weeks before this occurred she had had a fall, as her nurse thought, in consequence of an attack of giddiness. A four days' illness with sickness, etc., and restless nights, had preceded the hemiplegia. Then, suddenly one morning, her nurse found the left limbs paralysed, and they had never recovered. The wrist, fingers, and elbow were kept flexed, and moved stiffly, like those of a wooden doll. The right lower extremity had become somewhat weak also, but the upper one remained quite free. The left side of her face was involved in paralysis as well as the limbs. Two years after the attack of hemiplegia she had another fit, and was unconscious for thirty-eight

hours. It was attended by convulsions, and for ten days afterwards she did not know persons. This fit, however, left no paralysis, and would appear to have been of the nature of epilepsy.

Commentary LXXII.

Hemiplegia in a young woman who had suffered severely from congenital syphilis.

Dr. Turner sent me a young woman of about nineteen, who had lost part of her nose, all her front upper teeth, and her soft palate, and who was deaf, and had clouded corneæ. Her mother was known to have had syphilis, and there could not be the least doubt that she had herself suffered very severely from inherited taint. It was alleged that she had had no symptoms until aged eleven.

The chief interest of her case lay in the fact that she had recently had a sort of fit, which had left her with hemiplegia of the right limbs. The hemiplegia was already passing off.

Commentary LXXIII.

Nerve disorders in hereditary syphilis.

Dr. Hughlings Jackson has recorded the following remarkable history of a family :

Prima (æt. eighteen) had good teeth and good health, but there were extensive adhesions in both pupils, and scars at angles of mouth.

Secunda (æt. fifteen) was delicate, had typical teeth, partial blindness, and a slight degree of right hemiplegia. There were films in the vitreous and the optic discs were pale. Subsequently the left leg became weak also.

Tertia (æt. twelve) had typical teeth, had been always

ailing, and was nearly blind in the left eye. Vitreous, etc., as in *secunda*.

Quartus (*æt. eight*) had had fits, was quite blind, paraplegic, and partially idiotic. There were shreds in each vitreous, and the discs were dirty white. His teeth were not up.

Quintus (*æt. two-and-a-half*) was rickety, but nothing more.

Dr. Jackson suggests that probably in some of these cases the pia mater was affected.

Commentary LXXIV.

Illustrations of epilepsy and headache in association with hereditary syphilis.

A girl,* aged eleven (M. A. D.), who had characteristic teeth and physiognomy, suffered from double keratitis, and symmetrical synovitis of the knees. She was deaf, and liable to severe headaches and epilepsy. Her first set of teeth had, it was stated, all fallen out at three years old, and she was for three years toothless before the others came. (Under my own care.)

A boy,† aged fourteen, under the care of Dr. Brown-Sequard, had characteristic teeth and keratitis. At the age of four he had epilepsy, followed by right hemiplegia. He became partially idiotic, and had repeated attacks of epilepsy.

A lad, aged nineteen (Alfred O.) (under my own care), had characteristic teeth and physiognomy. He became liable to epilepsy at eleven, the attacks being attended by spasms in the muscles of the left limbs. These painful spasms always preceded loss of consciousness, indeed, the latter was often omitted. He had double keratitis at the age of eighteen.

* London Hospital Reports, vol. i. p. 387.

† Recorded by Hughlings Jackson, *Medical Times*, June, 1861; p. 651.

Commentary LXXV.

Fusiform neuritis in connection with inherited syphilis.

I find, published by Dr. J. A. Ormerod, in the Pathological Transactions, the case of a woman of twenty-three, who was the subject of inherited syphilis. The peculiar feature in her case, and one I think almost unique in connection with that cause, was the existence of a fusiform enlargement of the left median nerve in the middle of the upper arm. The tumour was tender on pressure. It had been present for nearly three years, and was attended by motor-paralysis, wasting, and anæsthesia.

Commentary LXXVI.

Paralysis of cranial nerves in a case of inherited syphilis.

Mr. Nettleship brought before the Pathological Society in 1881 a girl, aged fourteen, in whom the teeth and the previous occurrence of keratitis made the diagnosis of inherited syphilis certain. She had paralysis of the third, fifth, and sixth nerves, the condition having existed for four years. The anæsthesia was incomplete, as was also the motor-paralysis of several of the recti. It did not appear that the disease was aggressive.

Commentary LXXVII.

On amaurosis from primary atrophy ; its usual association with a history of bygone syphilis and with early symptoms of ataxy ; its incurability.

When white atrophy of the optic nerves occurs in the early stage of ataxy after syphilis, I fear there is

seldom much good done by the use of specifics. I have known a few cases in which the progress of the disease was arrested, but many more in which it steadily advanced. Yet it appears to be a duty always to give the patient the advantage of a full and early mercurial treatment. Probably in some of those in which we do not succeed in averting final blindness the progress of the disease is yet delayed. The question of the direct relationship of this form of amaurosis with syphilis, is just as difficult to solve as that respecting ataxy itself. Unquestionably a large majority of the patients who suffer from it, have at some former period passed through syphilis. It is never, however, an early symptom, and usually a period of some years has been experienced during which there was absolute immunity. Not infrequently a number of healthy children have been born; then, without any other manifestation of relapse of syphilis, the patient begins to lose the sight of one eye, and within a few months or a year the other follows. The discs become pale, and the condition advances till complete blindness results. In some cases no other symptoms of ataxy are present and none of the ocular muscles are affected. The patient may appear to be in perfect health, and may even remain so for several years after he has become blind. In the tendency to progress in spite of treatment, this disease differs much from the other forms of nerve paralysis which occur in connection with syphilis. If the fifth nerve, for instance, is attacked, although both its motor and sensory fibres are lost, yet we predict with confidence a considerable degree of restoration under specific measures. It is not so, however, with the optic nerve.

I will quote a single case (the one that I have last seen) as an example of many. Señor C. D., a Spanish gentleman, aged thirty-nine, came under my

observation in October, 1885. With his right eye he could not see $\frac{20}{200}$, but with his left he made out $\frac{20}{70}$. His right eye had begun to fail two years ago, and his left about a year. He had passed through syphilis in 1869, that is sixteen years previously. Since that he had married, and his wife had borne him three children, who remained in excellent health. He had had no symptoms of syphilis since the first disease. I found that his knee jump was entirely lost, and he had suffered occasionally from lightning pains in the leg and the right arm. But he could walk well with his eyes shut, and there had been no interference with his sleep. His pupils were very small, and the Argyll-Robertson phenomena were present. Thus there could be no doubt that ataxy had been setting in. There had, however, been no paralysis of any ocular muscle, and he had never experienced gastric crises. Six months later I saw Señor D. in consultation with Professor Galezowski of Paris. He had in the interval had the advantage of treatment in Paris under that gentleman and Dr. Alfred Fournier. All who had seen him had agreed that it was desirable to try the influence of mercury and the iodides. No benefit had, however, resulted. During the six months his right eye had failed until he could not see anything, and the left had passed from $\frac{20}{70}$ to $\frac{20}{200}$. His other symptoms were still just as before.

Commentary LXXVIII.

On paralysis of the fifth nerve.

Cases of paralysis of the fifth nerve occur every now and then in connection with syphilis, and constitute a group of great clinical interest. If I were to speak from my own experience, I scarcely know of paralysis of the fifth nerve except as a consequence of syphilis, while I have repeatedly seen it in that

connection. Sometimes it is complete, and sometimes only one part of the nerve is involved. I have more than once removed the eye-ball, in consequence of loss of the cornea, in cases in which the anæsthesia was so complete that the patient needed no anæsthetic, and did not feel the incisions at all. Yet even in these cases the cure, under the use of iodide of potassium, was in the end almost complete. I do not recollect a single case, which remained under my care, in which paralysis of the fifth nerve was permanent, when it depended on syphilis. In several, however, I have lost sight of the patient before the cure was complete. The manner in which the temporal and masseter muscles may again plump out after being completely paralysed and atrophied for months is very remarkable. It is to be admitted, however, that, although they almost invariably recover to a considerable extent, yet they almost always remain weakened. I may quote one remarkable case in which, about fifteen years ago, I treated a gentleman, first for paralysis of one fifth nerve, and then for that of the other. Owing to ulceration of the cornea, excision of one eye became necessary, but under treatment he regained both sensation and motion in the parts. The cure has been permanent. He is now living and in good health, and has had need of no specific treatment since.

As a rule, paralysis of the fifth nerve from syphilis affects only one nerve, and shows no tendency to become complicated by affections of the other cranial nerves. There are, however, exceptions. I have seen two cases in which both fifth nerves were involved (not simultaneously), and several in which other nerves suffered also. This want of symmetry and want of aggressive tendency would suggest that paralysis of the fifth nerve is usually due to disease of its trunk or ganglion rather than at its place of origin. Some instructive cases of paralysis of the fifth nerve

will be found recorded by Mr. Dixon in the Medico-Chirurgical Transactions, and I have myself recorded several in the Ophthalmic Hospital Reports.

Commentary LXXIX.

Immunity of the seventh nerve in syphilis.

A remarkable point in reference to the influence of syphilis on the cranial nerves is the almost constant exemption of the facial nerve. Facial paralysis from rheumatism (Bell's paralysis) is tolerably common, but Bell's paralysis from syphilis is infinitely rare. I do not think I have seen more than two or three examples from it, and they were always associated with affections of other nerves. Dr. Buzzard and Dr. Hughlings Jackson have both, I believe, recorded examples of it.

Commentary LXXX.

On paralysis of the glosso-pharyngeal and pneumo-gastric nerves.

I have seen two or three cases in which the inability to swallow, with other symptoms of syphilis affecting the nervous system, suggested paralysis of the glosso-pharyngeal. In two cases the patient had to be fed with a tube for a considerable time while under treatment, but in both recovery resulted. Defects in the innervation of the muscles of the larynx occur every now and then in connection with syphilis, and make it probable that branches of the pneumo-gastric are involved. They are, I think, usually recovered from under treatment. I do not know that the diagnosis of a gumma disorganising the trunk of the pneumo-gastric nerve has ever been made, but it is a possibility which is worth keeping in mind. I have already remarked on the curious fact, that while ophthalmoplegia externa appears to be,

in nine cases out of ten, a consequence of syphilis, we scarcely ever in any case trace bulbar paralysis (or glosso-labio-pharyngeal) to that cause.

Commentary LXXXI.

On the value of the evidences of past choroiditis as proof of inherited syphilis.

Amongst the symptoms to which we finally make appeal in cases of difficulty in the establishment of a diagnosis of inherited taint in children and young adults, is the evidence of past choroiditis. If, in a case in which other facts are present which suggest suspicion, there be any evidence of old choroiditis, it is, I believe, often held to be almost conclusive. I am convinced, however, that some care is necessary in its interpretation, and that it must not be relied upon if it stands alone and if other facts are in contradiction to it. What the other influences are, under which choroiditis disseminata may occur in early life excepting syphilis, I do not know; but I have seen several cases in which, after the most careful investigation and after observation of the patient for many years, I was obliged to come to the conclusion that no specific taint was probably present. Nor is it easy to mention any peculiarities which would enable us to distinguish the cases which are syphilitic from those which are not. The symptom must therefore remain, as I have just said, as one of great importance when it corroborates others, but untrustworthy when it stands alone.

The form of choroiditis which is the commonest from inherited taint is characterised by atrophic and pigmented changes near to the periphery of the fundus. They are sometimes seen in both eyes, sometimes only in one. In other cases patches may be seen in all parts of the fundus. There is yet another form in which

no large patches occur, but a great number of small ones, and in which numerous dotted and striated accumulations of pigment are seen in the retina simulating the condition of retinitis pigmentosa.

Commentary LXXXII.

Case of permanent recovery after hemiplegia from arterial disease.

I could mention a good many cases in which the recovery after brain symptoms supposed to be due to syphilitic disease of arteries was complete and permanent. Amongst them the following may be of interest, as I knew the whole details of the case from the beginning. I attended a gentleman named H. for primary and secondary symptoms, and treated him for four months with mercury. He got quite well, and, contrary to my advice, he married about fifteen months from the beginning of his disease. Within a few months of his marriage I was sent for to see him at his own house. He was hemiplegic on the right side, and aphasic. His attack had occurred while walking in the street. The iodide of potassium with mercury was freely administered, and in the course of a few months he recovered perfectly. It is now more than ten years since the attack, and he now enjoys good health. I have during the interval repeatedly treated him for tertiary ulcerations on his lips aggravated by smoking, and hydrocele in connection with an indurated testis. He has several healthy children, but it is probable that his eldest has suffered from taint. She was born at seven months, and had an enlarged liver at the time. She was for some weeks so ill that she was not expected to live. She is now fairly well developed and in good health.

Commentary LXXXIII.

Case of defective brain, with atrophy of optic discs, in association with inherited syphilis.

A young man who was sent to me by Dr. Barnes, of Ewell, afforded an excellent example of the slighter form of mental defect sometimes met with in connection with inherited syphilis. There could be little doubt that there had been in infancy a temporary condition of meningitis attended by optic neuritis. The lad was brought to me on account of defective sight, and in the hope that he might be helped by spectacles. I found that his pupils were of unequal sizes and not very active, and that he could see only $\frac{2}{5}$ o. He was seventeen years old, and engaged in a builder's office. He had a pair of typical teeth and a physiognomy which was fairly characteristic. There was no history of any illness that he could remember, but he had been told that he was ill in infancy. He was the eldest of his family, one older than himself having died young. His father had died, after a four years' illness, of "softening of the brain." Long before his last illness he had suffered from "headaches, which made him eccentric and of unbearable temper." It may be conjectured that the so-called softening was really due to slowly aggressive syphilitic changes. I found both optic discs very pale and their margins indistinct. The central vessels were not in the least concealed, nor were they much diminished. Near to the disc were some groups of faintly-marked minute pale dots in the choroid. None of these had any pigment at their edges. In the extreme periphery of both were ill-defined patches of similar dots, and after considerable search I found a few lines of black pigment in the retina. There were no large patches

of absorption in the choroid, and the changes were altogether very inconspicuous. Still, there could be no doubt that he had experienced an attack of neuro-retinitis, and that slight changes were now in progress in the direction of retinitis pigmentosa. It should be stated that it had been observed that he could not see well by artificial light, and that his pupils dilated but little under the use of atropine. As yet no attack of keratitis had been experienced, but probably it is to come. Nor was there any deafness. As regards his brain condition, the lad was so nervous, that I could scarcely get him to speak to me, or to read the test-types. A friend who came with him told me that he was decidedly defective in intellect and much behind other boys of his age. It was believed that his sight was slowly getting worse.

It is, I think, not uncommon for congenital syphilis to damage, in some slight degree, the whole bodily development. Its subjects are not very unfrequently short in stature and a shade below the average in general capacity. Sometimes there appears to be special defect in sexual development. In a few rare cases this general defect is very marked. I have seen two or three young women (adults), the subjects of inherited taint, who were dwarfed and had no sexual characteristics. Their mammae were not larger than those of boys, and little or no sexual hair was present. In one such we had the opportunity of a post-mortem examination, and found the uterus and its appendages of extremely small size. Thus the extreme length of the uterus was less than an inch and a half. Lanecreaux has related a somewhat similar case. I have seen young men also, under similar conditions, in whom the sexual development was exceedingly slight. To what local lesion in infancy, or during intra-uterine life, we should assign such general arrests I do not know, unless, indeed, we conjecture

that they have to do with changes which have taken place on the surface of the hemispheres. In a few very exceptional instances indications of cerebral failures continue to advance with extreme slowness during life. These are probably analogous to the pseudo-retinitis pigmentosa which occurs in inherited syphilis.

Commentary LXXXIV.

On idiocy and juvenile dementia in connection with inherited syphilis.

It has been a matter of general remark amongst authorities on this subject, that well-marked examples of inherited syphilis are not frequently seen in our idiot asylums. Many years ago my friend, Dr. Daniel Hack Tuke, persuaded me to visit with him the Earlswood Asylum with special reference to this point. The result was that we found only a very few who could be reasonably suspected of being syphilitic. Dr. Langdon Down subsequently, from more extended investigations, recorded a similar opinion, and recently, in conversation, this high authority told me that he had seen no reason to alter his belief. In the *British Medical Journal* of January 30th Dr. Shuttleworth, of the Lancaster Asylum, in a lecture upon the causes of idiocy, upholds the same view, stating that he had not one patient under care in whom syphilis could be suspected, and adds that characteristic teeth are rare in idiot asylums. Dr. Judson Bury, in an excellent paper in *Brain*, of April, 1883, maintains a somewhat different opinion, and thinks it not improbable that there are more cases due to this cause than have been suspected. He urges the importance of taking a wider basis for diagnostic recognition, more especially the examination of the choroids. It is quite true, as I have, indeed, often urged, that we must not content ourselves with the inspection of the

teeth. Probably only in a minority of the examples of inherited taint do the teeth show any peculiarities, and in many in which they are damaged they are yet far from being characteristic. If we would wish to be successful in our diagnosis, we must take into simultaneous consideration the whole group of phenomena which we now know are often connected with the taint. If this were done, Dr. Judson Bury thinks that we may probably find syphilis as a cause in not a few cases of juvenile dementia.

As might have been expected from the fact that syphilitic infants are generally born with all the appearances of perfect health, we do not find congenital idiocy, whether microcephalic or otherwise, in other than the very rarest connection with this taint. It is at the same period of life that we encounter disorders of the sense capsules, choroiditis, keratitis, deafness, and the like, that we find the chief risk to the brain, and thus the failures of intellect are to be classed rather as the dementia of children than infantile idiocy.

The precise date at which the brain began to suffer in Dr. Down's patient was not known, but it was certain that the idiocy was not congenital. It is usually at about the age of eight or nine that the brain begins to fail. Even then the attack rarely proceeds to any high degree of intensity; acute outbreaks are very rare. This is in keeping with what we observe in connection with choroiditis, which rarely destroys the sight, but produces, as a rule, changes only in the periphery of the fundus. Dr. Hughlings Jackson has drawn our attention to the probability that a pia-matritis may be in some sort the analogue of choroiditis and may occur under similar conditions; and Dr. Judson Bury has proved from necropsies that a state of secondary atrophy of the grey substance of the convolutions may be the result.

As a matter of clinical observation, I would suggest that it is not at all uncommon to note a slight deficiency in vigour of intellect in the subjects of infantile syphilis, but that anything amounting to dementia is certainly rare. Their defects, whether very slight or more severe, are, I think, rarely aggressive, though I have known a few in which the symptoms implied slowly-advancing changes. In one such, many years ago, I obtained a post-mortem examination, and found the skull-cap thickened and sclerosed and the brain atrophic.

I have myself seen a very great number of the subjects of inherited taint who had attained adult life and whose intelligence was excellent. I have at the same time seen a few in whom, at different periods of life, cerebral disorders were slow to develop, which were attended with mental derangement now and then amounting to imbecility. In one case a lad whom I had long known as having suffered from interstitial keratitis, etc., became an inmate of Colney Hatch, and there died; but I do not know what precise form his insanity took. A girl of about ten, who was brought over from New Zealand quite blind with white atrophy, and in whom the evidences of inherited taint were perfectly conclusive, was most violent and in a state requiring continuous control.

CHAPTER VI.

COMMENTARIES ON DISEASES OF THE EYE AND EAR
IN RELATION TO SYPHILIS (WHETHER ACQUIRED
OR INHERITED.)

Commentary LXXXV.

*Case of neuro-retinitis, with peculiar symptoms one
year after syphilis.*

Mr. A. B., aged thirty-one, suffered from primary disease in August, 1884. The surgeon under whose care he was, a gentleman of large special experience, insisted that the sore was soft, and not infecting, until the eruption appeared. When it did so, he acknowledged his mistake, and prescribed mercury. This was given for two or three months, and then, as all symptoms had passed away, the treatment was laid aside. About eight months later the sight began to fail. Mr. B. was now for several months under the care of an ophthalmic specialist, who recognised the disease, but gave only iodide of potassium. He came under my care for the first time in March, 1886, eighteen months after the primary disease, and four after his eyes had been affected. His case is of interest because there had been no relapse of symptoms, excepting in the eyes. He had had no headache or giddiness, and if we except a slight dulness of hearing in both ears, I was unable to discover any other symptoms whatever. He thought that his sight was a little improving. He could with a little difficulty see to read No. 5 with each eye, and he was accustomed every day to read his newspaper. He averred that he could see little things well enough, but could not see large objects, and stated that if he went out in the evening, he was continually running

against people. His occupation obliged him to drive about a great deal, and he had been obliged to give this up, excepting by broad daylight. He could see $\frac{20}{40}$ of the test types; but his sight varied much at different times. There had been no pain in the eyes, and no ocular symptoms except dulness of vision. I was prepared, from his description, to find changes commencing in the retina of the periphery, but this was not so. The condition was one of symmetrical neuro-retinitis. The discs were slightly swollen, their edges concealed, and the adjacent parts of the retina hazy. There were no opacities in the vitreous of either eye, and no iritic adhesions.

Commentary LXXXVI.

Diseases of the ear in connection with syphilis.

Our knowledge of diseases of the ear in connection with syphilis is of recent acquisition, and as yet incomplete. A very serious form of deafness, often absolute, has, however, been clearly identified in connection occasionally with the acquired disease, and far more frequently with the inherited. Its features under these two conditions are, for the most part, similar, though with differences, and it is probable that it depends upon similar changes in both. That those changes take place in the internal ear, or the nerve apparatus, is tolerably certain; but as to their exact site and nature we are still in doubt. Apart from these forms of nerve deafness, which I shall describe directly, the function of hearing may be impaired in syphilis by disease (*a*) in the external ear, as, for instance, by a chancre, or a papular or condylomatous eruption; or, later on, by periostitis or lupus; (*b*) in the Eustachian tube, or middle ear; by extension from the throat of inflammatory action; or by adhesions, or stricture, secondary to ulceration. None

of these conditions cause absolute deafness ; nor do they interfere with conduction through the cranial bones. The patient can always hear his own voice, or a watch placed between his teeth. For the most part one ear only is affected. The prognosis is usually good (that is, up to a certain point), and the measures of treatment are easily laid down. It is wholly different in the affections to which we must next ask attention. In these the onset is rather sudden : both ears are affected, though, perhaps, not quite simultaneously ; the progress is rapid, and, unless the treatment be very prompt and exceptionally successful, the loss of function may be absolute. There is seldom any material pain, and scarcely ever any otorrhœa, or other evidence of external inflammation. Tinnitus is almost always present from the first, and is sometimes distressing ; and occasionally, but not usually, especially if both ears be affected, there is giddiness. Probably many cases occur both in the inherited and acquired form of disease in which the ears are slightly affected, and the condition passes off, but if once the state have reached a certain point the prognosis is most grave. All observers admit that in such cases their degree of success has been very little. It is imperative, therefore, whenever the ear is threatened in syphilis, to push specific measures as rapidly as possible. The patient should be made to keep his bed, and mercury so used as to touch the gums within a week. By these measures, in one case of the most alarming character, I believe that I was successful in restoring perfect hearing. Unfortunately the disease but too often does not come under the notice of the specialist until too late. My own experience would lead me to believe that severe forms in association with acquired disease are rare. I have seen three or four patients absolutely deaf from it, but not more.

In the inherited form it is unfortunately tolerably common, and is yet less amenable to treatment. It is a not unfrequent cause of acquired deaf-mutism. It is quite possible that the recognition of the bad prognosis may have induced, in reference to this class of cases, supineness in treatment. We do not usually in hereditary syphilis adopt the vigorous measures which I have just hinted at, but I am sure that, having regard to the terrible results in prospect, it would be more than justifiable, in the early stage of ear disease of this type from inherited taint, to confine the child to bed, and induce ptyalism quickly. Mr. Hinton, from his practice at Guy's, calculated that one in twenty of his patients suffered from it, and that it was by far the most frequent cause of non-congenital deaf-mutism. Sir W. Dalby places it next to scarlet fever as a cause of that condition. When disease of the internal ear occurs from acquired syphilis, all observers agree that it is usually towards the latter part of the secondary stage. Its progress is so rapid that some have spoken of its onset as "sudden"; there is, however, always a premonitory stage. The loss of power of hearing through the cranial bones is usually early and definite. Occasionally some nocturnal pain may occur in the temporal and frontal bones. Our pathological anatomy is not yet sufficiently advanced to enable us to state whether this disease is located in the internal ear or in the nerve structures themselves. It will be seen that it has its analogue in iritis and neuro-retinitis when these affections occur from acquired disease. It is not so, however, when they occur from inherited taint. If the subjects of the latter have iritis, it is always in infancy; whereas the deafness seldom happens till eight years of age, and is usually later, occurring at the same time as the keratitis. The discovery of this disease in association with inherited syphilis was one of the

earliest results of the recognition of the teeth as a means of diagnosis, and at the meeting of the British Medical Association in London in 1860 I demonstrated both the peculiarities of the teeth and this special form of deafness by the production of a considerable number of patients. It would appear that females are more subject to the disease than males. I was assisted in my work in this matter by my friend, the late Mr. Hinton, and he subsequently did, independently, other valuable work in respect to it.*

Commentary LXXXVII.

Scattered gummata in the choroid of one eye only, nearly two years after syphilis; retina not implicated.

I saw Mr. S., aged twenty-one, with Mr. George Mackenzie, on Nov. 23rd, 1884. His right eye had failed him suddenly in the preceding August, the failure having been discovered when out grouse shooting. It soon became so bad that he could scarcely see at all with it, but the other eye remained perfect. He consulted a good specialist, who at once gave him mercury. He improved somewhat under treatment, but not regaining his sight he was, as stated, after three months' treatment brought to me. I found that he could not see $\frac{2}{200}$, and could only just puzzle out Jæger 18 at 8". Ophthalmoscopic examination demonstrated the conditions of choroiditis disseminata in a comparatively recent stage. Scattered over the fundus were an immense number of gummata of various sizes, from mere points to areas of considerable extent. They were of a yellowish white colour, and some of them distinctly, though but slightly, raised. In all, the

* We are indebted to Wilde, Schwartz, Hinton, Dalby, Sexton, Sturgis, Roosa, and Moos, for much of our knowledge of deafness in connection with acquired syphilis.

margins shaded off gradually. The smaller ones were round, but the larger were of irregular forms. None were seen near the periphery, and one of the largest involved the yellow spot. It appeared that the choroid alone was involved. The disc and the retina, with their vessels, were quite clear. Where vessels crossed the patches they were not in the least concealed. In further proof of the escape of the retina there was not, with one single exception, the slightest disturbance of pigment. At the margin of one of the largest patches there was at one part a narrow border of black pigment, but all the others were absolutely free from it. Our patient, it should be stated, had light-brown hair and grey irides. Although three months had elapsed since the beginning of the attack, and he had been having mercury, yet, as he had never been salivated, and as there was still proof of some deposit, I thought it best to advise further and more vigorous treatment. The history of the syphilis was definite but peculiar. Mr. George Mackenzie, who came with him, had himself treated him from the beginning. It was exactly two years ago. There were three chancres, and one of them was so decidedly hard that Mr. Mackenzie at once ordered mercury, without waiting for secondary symptoms. The result was that no rash ever appeared, and only a slight and doubtful sore throat. As a bubo suppurated, it was even hoped that the diagnosis had been mistaken. Mercurial treatment was not continued long, and he got quite well, and remained without other symptoms until his eye inflamed. That the choroiditis was syphilitic no one could doubt, for its features were pathognomonic.

As Mr. S. had appeared to be not easily susceptible of the influence of mercury given by the mouth, I advised that he should be made to keep his bed, and undergo a vigorous inunction treatment. This was done, and three months later I saw him again. I was

told that it had been found impossible to salivate or to produce any obvious effect. He had rather gained in health than otherwise, although large quantities of the ointment had been used. The eye had improved so far that all the gummata were now represented by white patches. There was still the same absence of pigment at their edges. The sight had improved a little, but not much. He had no other symptoms of constitutional syphilis, was in excellent health, and eager to join his regiment in Egypt, assuring us that he would take care that no one should know that he had a blind eye.

The case seems of interest to the student of syphilis as a proof that a single organ in the body, and a single tissue in that organ, may alone suffer from the constitutional taint. There was not throughout the slightest trace of disease in the other eye. It also supplies us with a fact as to the stage of the disease at which choroiditis may occur. It began probably in about the twenty-first month from the date of contagion. It will be noted that it ranged itself thus with the late secondary, or early tertiary symptoms. Gummata in the testis, and arterial diseases, are, I believe, prone to occur about the same period, and these, too, are often only one-sided.

I well remember another case in which I treated the patient for his primary disease myself, and in whom, as in Mr. Maekenzie's patient, no obvious secondary symptoms ever manifested themselves, and yet a severe choroiditis almost destroyed one eye. The patient had literally no other symptoms. It is twenty years ago, and I believe that he has remained well ever since.

Commentary LXXXVIII.

Blindness and deafness (absolute) as the result of inherited syphilis.

We do not often come across cases in which the keratitis of inherited syphilis ends in blindness, and still less frequently those in which blindness from this cause is combined with total deafness. An example of this total destruction of these two most valuable special senses came under my care in September, 1877, the patient being a tall young woman of eighteen, from a country town.

No clue to the inheritance was obtainable. The father looked healthy, and denied having ever had any venereal disease. The mother had died of cancer of the breast, and had not shown anything suspicious. The eldest child was now aged twenty-six, and had not suffered in any way. Our patient was the youngest of the family. Between her and the eldest, two were born, who both died in early infancy. Our patient was not known to have had any infantile symptoms. At the age of five she was brought to Moorfields (from Peterborough), and, after repeated relapses, at the age of ten she was quite blind. She is now well grown, and of fairly good features, but both blind and deaf. Her left cornea is hazy, thinned, and staphylomatous. The pupil in the right eye is closed, and a chalky mass occupies it. Her deafness began at the age of twelve, and was complete in two years. She can now be communicated with only by means of writing on her palm, her deafness being absolute. She is quick, intelligent, and cheerful. She talks a great deal, but has so lost the power of modulating her voice that none excepting her relatives can understand her. She goes about her home as quickly as any one else, and can set the table, make the beds, do 'crochet

work, etc. For some years past she has had no evidence of aggressive syphilis. Although the history of disease in the parents is wanting (I put the direct question to the father), yet there can be no doubt that she is syphilitic. Her teeth are most characteristic, being extremely dwarfed, and the coincident occurrence of double keratitis and absolute deafness at this age is in itself conclusive. Yet she is well grown and of fairly good features, the chief peculiarity in her physiognomy being the pallor and silky softness of her skin. It must be noted as remarkable that whilst both eyes have been lost they have been destroyed by somewhat different forms of disease, in the one occluded pupil and in the other staphyloma of a thinned cornea, but in both I suspect that most of the coats of the eye-ball have been implicated. I declined to operate on the occluded pupil from a conviction that the whole globe was unsound.

I have seen many cases in which both sight and hearing were much damaged by inherited syphilis, and a few which were close parallels to the above, the blindness and deafness being complete.

Commentary LXXXIX.

Second attack of syphilitic keratitis, with some unusual features.

I have mentioned above a case in which the organs of both sight and hearing were entirely destroyed by inflammations due to inherited syphilis. Such results are rare, and it is usually a very remarkable fact how completely the keratitis of syphilis clears away. The following case is an example of what we see now and then, but not often; *i.e.* a second attack of keratitis. The second attack was seven years after the first. It will be seen that great damage was threatened to the eyes.

Jane L., aged twenty, is the subject of inherited syphilis, and has a characteristic physiognomy. Eyes weak from infancy, and myopic. At the age of fourteen she attended the London Hospital for an attack of keratitis. She recovered, and her eyes remained in a satisfactory state till the beginning of 1877.

In August, 1877 (three months after the second attack had begun) she came to me at Moorfields. Her anterior chambers were deep, and the pupils, without atropine, were widely dilated. The left eye was the worse, and in its vitreous were numerous films of opacity; also some iritic adhesions. In both eyes were patches of choroidal atrophy. Both corneæ were hazy, with straight radiating lines of opacity.

Some months later (in October) an attack of fresh inflammation occurred in the left. The conjunctiva became universally red and velvety, and there was some mucus discharge, almost suggestive of catarrhal ophthalmia. Much pain and considerable reduction of tension. The surface of the cornea was crossed by numerous small vessels not arranged in patches. Before this attack she could fairly see to read with the left, but now can hardly see light.

She is the second born. Five others are living, and none of them have ailed anything. The eldest is a young man of twenty-seven. One born between him and our patient died at a month old. The next is now aged sixteen. In infancy this patient had snuffles badly, and was for two years at the Dorchester Hospital.

Commentary XC.

Inherited syphilis suspected; choroiditis disseminata at an unusually early age.

I do not know with any exactness the age at which the choroiditis of inherited syphilis usually occurs.

When it affects the periphery of the fundus only, as is most usually the case, it is, probably, often coincident with the attack of keratitis. Not infrequently we find evidences of past choroiditis in patients who have never had any affection of the cornea, and sometimes it is certain that it precedes the keratitis by many years. Since choroiditis often causes comparatively little defect of sight, and children make no complaint of slight failures of this kind, in fact, never observe them, we but rarely have the opportunity of examining it in the earliest stage. Almost invariably we discover only the results of disease which has been long past. It is not improbable that it often occurs to infants. In the acquired disease we know that it usually happens at a comparatively early period, occasionally soon after, or even with, the iritis of the secondary stage.

The youngest patient in whom I have recognised choroiditis disseminata was an infant, aged five months, whom Dr. Barlow was kind enough to send to me from the Children's Hospital. There were extensive evidences of old choroiditis in both eyes, large patches of sclerotic being laid bare. The infant was hydrocephalic, the head having begun to enlarge at the age of two months. Some snuffles had been present, and there was a scaly rash on the forehead. I thought that the child was syphilitic, but there was no conclusive proof.

Commentary XCf.

*Choroiditis disseminata in a mother and two daughters ,
loss of the nose by phagedæna in one daughter ;
history of syphilis negative.*

The following narrative conveys important lessons as regards the relative value of the patient's family history and the symptoms displayed, for purposes of diagnosis. I have no doubt that both in mother and daughters the disseminated choroiditis was really due

to syphilis; acquired in the one case, and inherited in the other. Yet the history, as will be seen, was negative.

Mrs. C., aged about forty, brought me her eldest child on account of phagedænic ulceration of the nose. The septum and tip of the nose were entirely destroyed, and cicatrisation had occurred level with the cheeks. After it had once healed there had not been the slightest tendency to relapse, and thus a very marked feature of difference was shown between this disease and common lupus. The loss of the nose had occurred at the age of three years, and had resulted, according to the mother's belief, from a fall. The child was fair complexioned, and, excepting as regards her nose, there was nothing in her physiognomy indicative of syphilis. Her teeth were carious, and malplaced, but not typically malformed. In both eyes were numerous patches of absorbed choroid, with pigment accumulations; these were more numerous in the left than in the right. In 1869 I saw this child again; she was then eleven years of age. With the right eye she could read $2\frac{1}{2}$; with the left $3\frac{1}{2}$. The state of the choroids was much as at the previous note.

Mary E. C., aged ten, the younger sister of the above patient, showed similar conditions as regards the eyes. In the right eye were numerous and large patches; in the left few and small ones. The right eye diverged. With the left eye she could read $2\frac{1}{2}$; with the right only 12. This child was a florid, fair-complexioned, pretty girl; her teeth were excellent, both in form and colour; and her physiognomy showed nothing indicative of syphilis.

Mrs. C., the mother of the patients mentioned above, had herself lost one eye with choroiditis disseminata. It was the left; and the history given was that the sight had failed four or five years after marriage. She had no other indication of syphilis.

She had been married nearly twenty years. Her eldest child was not born till eight years after marriage, and died in consequence of an accident at the age of eight. Ada and Mary, whose cases have just been given, were her only other children. She did not admit that any of her children had presented positive symptoms in infancy.

In August, 1869, I had an opportunity of seeing Mr. C., the father of the children. He would not admit having ever had anything excepting a slight gonorrhœa. He appeared in good health, and asserted that he had always been so. These children were the offspring of his second marriage. Although Mr. C. entirely denied the history of syphilis, he very willingly consented to my giving him a letter to his family surgeon, explaining my view of the nature of his children's ailments.

It will be seen in the above narrative that my reason for regarding the cases as syphilitic is rather that they corroborate and support each other than that the evidence is conclusive in any one direction. A mother and two daughters have been the subjects of choroiditis disseminata, and one of the latter has lost her nose by a form of phagedæna not usually met with excepting in connection with syphilis. There is no history of scrofula in the family; nor, indeed, if there were, is this form of choroiditis ever seen as a scrofulous disease.

Commentary XCII.

On the different forms of choroiditis.

It is certain that we encounter choroiditis in connection with syphilis in different forms, and at different stages of the malady. In the secondary stage there is a choroido-retinitis beginning at the disc, and not usually spreading far from it. In this affection the

choroid is but little involved, but in some instances ill-defined gummata at a distance from the disc are present at the same time. These conditions usually disappear very completely under treatment, and without much damage to the eye. At a later stage, say from two to four years after the primary disease, and possibly much later, we sometimes encounter scattered gummata of small size, without any indication of disease of the retina or the disc. These are sometimes absorbed very quickly under treatment, but they usually leave atrophic patches, or scars. Another form of choroiditis which occurs at a much later stage, say eight, ten, or twenty years after the disease, is characterised by very large patches of atrophy, which spread peripherally; that is, are serpiginous. The affection in this case appears to resemble a lupus process in the skin, and unless specific treatment be vigorously carried out the eye may be lost. It is remarkable that the yellow spot itself is sometimes spared when all around it is disorganised. I have seen this in two or three cases. In inherited syphilis we have yet another form of choroiditis, in which the disease begins peripherally, and the patches are arranged in the form of a zone. In this the pigmentation is permanent, and the conditions much resemble those of retinitis pigmentosa. This disease begins about the same time as the interstitial keratitis. It may end in very serious damage to sight.

Commentary XCIII.

On keratitis in connection with acquired syphilis.

The occurrence of syphilitic keratitis in connection with acquired syphilis is exceedingly rare. I have not myself seen more than three or four cases in which there was any reason for diagnosing such a condition, and in most of these the affection was very slightly

marked and transitory. With the exception of the single case which I am about to describe, I have not seen any in which the keratitis was severe and symmetrical. It is a very interesting fact, and one for which as yet I know of no explanation, that symmetrical keratitis of a severe form should be so common in inherited syphilis, and so rare in the acquired disease.

Commentary XCIV.

An example of most severe keratitis in association with the secondary stage of acquired syphilis ; resistance to treatment for a long period, but final recovery.

The important exception, to which I have referred above, occurred in the person of a young married woman, whom I saw in Moorfields Hospital, when she was under the care of my late colleague, Mr. Wordsworth. The keratitis occurred simultaneously with the secondary syphilitic eruption and sore throat. She suffered also severely from rheumatic pains. The form of keratitis was most peculiar. I will describe it in Mr. Stanford Morton's words, by whom the case was published in the Moorfields Reports : "She had intense photophobia, great ciliary congestion and tenderness, with haze in the centre of each cornea, and greyish-yellow deposits of lymph at the periphery, triangular in shape, with the apices converging towards the centre." This was on November 10th. On December 1st "the opacities at the periphery of the cornea had assumed the form of striæ, reaching to the centre of cornea, and a minute blood-vessel could be seen, by means of a lens, to be sent into each striæ; in some instances running straight towards the centre, in others branching and anastomosing with the neighbouring branches." By December 5th the whole cornea was more or less opaque; the central opacity and the striæ, however, remaining well marked,

and being distinctly in the layers of the cornea, as was the vessel in the centre of each opaque stria. In this case treatment proved very disappointing. Mercury was used more or less from November until September of the following year. During this long period the eyes had remained in much the same condition, but there had been repeated relapses, attended by acute pain, œdema of the lids, and chemosis of the conjunctiva. In September, her corneæ remained in the same condition; the opacities were no less dense, and the striæ, with their vessels, were as well marked as ever. The recurring attacks of inflammation had been so severe, and her loss of sight was so nearly complete, that it had even been suggested that it would be better to have the eyes excised. Other symptoms of syphilis also long persisted; she had ulceration of the alæ of the nose and vomer, and psoriasis of the palms and soles. Long after all other symptoms had disappeared the corneæ remained hazy. Finally, however, they cleared, and I believe that she can now see almost perfectly. Lapse of time seemed to have been the chief agent in the case.

Commentary XCV.

On iritis when occurring in consequence of inherited syphilis.

In my work on syphilitic affections of the eye and ear, I collected a series of cases illustrating the iritis of infants. I do not here reprint the cases, but only the summary of the facts respecting them. The series comprised twenty-three cases, and most of them had been under my own observation.

Summary of twenty-three cases of iritis in infantile syphilis.

1. *Age.*—The average age of the patients at the time the iritis commenced was five months and a half.

The oldest was sixteen months at the time of the outbreak (case 14), the youngest six weeks (cases 21 and 22).

2. *Sex*.—Five of the infants were males and sixteen females; the sex of the remaining two is not specified.

3. *Eye attacked*.—In cases 3 and 4 there is no statement as to which eye suffered, but in both it was one only. Of the others, both eyes were affected in eleven, the right alone in seven, and the left alone in three. We have, therefore, twelve cases in which but one eye, and eleven in which both eyes, suffered.

4. *Phenomena of the attack*: (a) *Congestion of tunics, etc.*—The pink zone of sclerotic congestion appears to have been well marked in only two instances; in ten others it was present, but only faint and ill-characterised; in two cases no note on this point is recorded, and in one it is expressly stated that, during the acute stage of the iritis, there was no increased vascularity of the tunics. In seven cases the acute stage had wholly subsided when the patient came under observation. In but three cases does it appear that any redness of the eyelids was noticed. (b) *Effusion of lymph*.—If in those cases seen late, or in which the pupil was wholly occluded, it is fair to assume that there had been free effusion; we have fifteen cases in which the pouring out of lymph may be said to have been copious. Of the others, in four it was moderate, in three the iris was merely tumid and discoloured, whilst in one we have no note as to its state. (c) *Keratitis complication*.—In one case the cornea is described as “hazy;” in one it ulcerated without any diffused haziness; in one it became prominent without haziness; and in one lymph effused into the anterior chamber became adherent to its posterior surface, its proper structure being unimpaired. In all the other cases (fifteen eyes) the

cornea remained perfectly clear throughout the attack. In one case Mr. R. Moon's notes state that slight hypopyon occurred.

5. *Result to the organ.*—In seven cases (ten eyes) the cure may be said to have been complete, every trace of lymph having been removed; in two or three other cases it was complete, excepting that slender adhesions remained. In three cases (four eyes) the result is not known. In twelve cases one pupil was permanently occluded by organised false membrane. In nearly the whole of the last cases, in which the effusion was never absorbed, the patients came under care only at a late period of the disease, after the lymph had become organised and when but very little chance of its removal remained. To cases 7 and 13 I may point as interesting illustrations of the efficiency of mercurials in procuring the removal of lymph which already appeared to be vascular, and the absorption of which was by no means expected.

6. *Other symptoms of syphilis present at the time of the iritis.*—In several of the cases the account of co-existent symptoms is either wholly wanting or very imperfect. The specific cachexia is stated to have been present in twelve instances, and its having been absent is specially noted in five. Psoriasis of the general surface was present in ten instances; a papular rash in two; psoriasis palmaris in one; erythema marginatum in two; and "peeling of the skin" in one. In one mucous ophthalmia attended the iritis; in one the eyelashes had all fallen out, and in one the lids were affected by tinea tarsi. "Snuffles" in the nose existed as a marked symptom in eleven cases; in four there were aphthæ or other sores in the mouth; in five soft condylomata around the anus were present, and vaginal discharge in one. In two cases (5 and 15) the notes show, that although from the history there could be no doubt as to the diagnosis, yet that no specific

symptoms existed in the infant at the time of the iritic outbreak.

7. *Length of period which had elapsed between the date of the primary disease in the contaminating parent and the birth of the infected child.*—Our data on this point are far from being complete. Indeed, from the very nature of the inquiry it is impossible that they should. It is, however, of too much importance to be avoided altogether. In one instance the mother had, it appeared, had primary syphilis only three months before the infant's birth, and in another the period was four, and in a third, six months. In five cases it seemed probable that a period somewhat less than a year had elapsed, whilst in five it had been at least two years. In two, judging by the fact that the mother had borne a number of children, some of whom had showed suspicious symptoms, the date of the original disease in the father could not be placed nearer than six or seven years. Of the thirteen cases in which alone a history of the family is recorded, *we find that the affected infant was the only living child of his parents in twelve instances.* In four, it was the result of its mother's first conception; in four, miscarriages only had preceded its birth, and in four other cases (2, 5, 7, and 23), previous conceptions had terminated either in abortions, or in the birth of children who had died of syphilis. In the only case in the whole series in which it is stated that there were other living children the mother had lost four infants out of seven live births.

8. *Infrequency of this kind of iritis.*—Respecting the frequency of iritis in infants, there can be no difficulty in admitting that it is amongst the rarest of the symptoms of hereditary syphilis. I am sure, however, that it often escapes notice. The absence of the sclerotic zone, and the very small amount of local symptoms which it causes, taken with the fact

that young infants usually keep their eyes shut, will account for this. In proof of it, I may mention that, in 1852, I showed to a friend of mine, who had then for fifteen years held a hospital appointment which brought under his notice vast numbers of the poor, the first case of syphilitic iritis in an infant which he had seen. The disease was new to him, and he was much interested in it. Since then he has had, in exactly the same field of observation, no fewer than five cases. Yet in proof that, however carefully looked for, it is really very rare, I may mention that during seven years' practice at the Metropolitan Free Hospital I never treated a single case in connection with that institution, although numbers of congenito-syphilitic patients presented themselves, and I scrupulously looked at the eyes in all.

DIAGNOSIS, TREATMENT, AND PROGNOSIS.

On account of the very slight symptoms which often attend it, iritis in the infant is very liable to be overlooked. Its diagnosis, however, when once attention has been called to the patient's eyes, can scarcely be considered difficult. In two cases, however, I have known considerable difference of opinion to prevail as to its existence. These were cases in which the iris was simply tumid and discoloured, in which no perceptible masses of lymph had been effused, and no congestion of the sclerotic vessels existed. In each instance by the use of atropine I was enabled to demonstrate great irregularity of the pupil, and thus to remove the doubts of those who had at first hesitated to concur in my diagnosis. In like cases the employment of the solution of atropine should always be resorted to. It will also often be necessary in young infants to use a spring speculum to keep the lids open in order to procure a satisfactory inspection. Irregularity of the

pupil, the presence of white, yellow, or red lymph, tumidity, loss of lustre, and alteration of colour in the iris itself are the symptoms upon which the diagnosis is to be based. Generally, also, there will be seen on minute inspection a faint pink zone in the sclerotic. There is very rarely much congestion of the conjunctiva, and the cornea is almost always clear.

The measures of treatment are simple. The daily use of atropine drops* to dilate, if possible, the pupil, and the rapid exhibition of mercurials, are the two all-important measures. I usually employ the mild mercurial ointment, directing it to be rubbed into the soles of the feet, nape of neck, and calves of legs, about a scruple being employed daily. The infant's general health should be carefully watched, and instructions given as to a proper dietary. Syphilitic infants need animal food in the form of broths, beef tea, etc., at an earlier age than others. If there be diarrhœa, or if the mercurial induce it, a carminative draught containing opium may be given, but the mercurial must not be laid aside whilst any lymph is present in the pupil, unless the child's state should absolutely necessitate it. In these cases, however, mercury almost always agrees well, and the infant gains flesh under its use.

The prognosis of these cases depends upon the stage at which they come under treatment. If the lymph is recent, however free its effusion may have been, absorption may be confidently expected under the mercurial treatment.

APHORISMS RESPECTING IRITIS IN INFANTS.

1. The subjects of infantile iritis are much more frequently of the female than the male sex.

* Two grains of sulphate of atropine to an ounce of distilled water.

2. The age of five months is the period of life at or about which syphilitic infants are most liable to suffer from iritis.

3. Syphilitic iritis in infants is often bilateral, but quite as frequently not so.

4. Iritis, as it occurs in infants, is seldom complicated, and is attended by but few of the more severe symptoms which characterise the disease in the adult.

5. Notwithstanding the ill-characterised phenomena of acute inflammation, the effusion of lymph is usually very free, and the danger of occlusion of the pupil great.

6. Mercurial treatment is most signally efficacious in curing the disease, and, if recent, in procuring the complete absorption of the effused lymph.

7. Mercurial treatment previously adopted does not prevent the occurrence of this form of iritis.*

8. The subjects of infantile iritis, though often puny and cachectic, are also often apparently in good condition.

9. Infants suffering from iritis almost always show one or other of the well-recognised symptoms of hereditary taint.

10. Most of those who suffer from syphilitic iritis are infants born within a short period of the date of the primary disease in their parents.

* In many of the cases the patients had previously been treated by mercury for other symptoms of hereditary syphilis. In one instance the second eye was attacked while the patient was taking mercury for the cure of iritis in that first affected. This I have known occur more than once in adults. In the latter, in five instances I have seen acute syphilitic iritis set in during actual ptyalism.

CHAPTER VII.

COMMENTARIES ON SYPHILITIC DISEASES OF THE
VISCERA.**Commentary XCVI.**

On disease of the liver and jaundice in the course of syphilis.

PORTAL is said to have first described jaundice in connection with syphilis ; and Reepert published two cases. In 1853 Gubler wrote on the same subject. He believed that the liver became the seat of general congestion. Lancereaux, who referred to twenty-one such cases, and published three, adopted the theory of general congestion as the usual explanation. The liver has in some cases been noticed to be obviously enlarged. Dr. Hilton Fagge especially draws attention to the fact that the jaundice in these cases is not due to the administration of mercury, stating that in several cases in which it occurred no mercury had been given.

Dr. Wilks, in the 17th volume of Pathological Transactions, has described the first example of syphilitic disease of the liver in an infant which he had then met with, and the first which had been brought before that Society : " Having dissected the bodies of several infants who have died of congenital syphilis, I have found fatty livers and an inflammation of the capsule, but in only two have I discovered adventitious products of a fibrous character. The present example, however, corresponds in every particular with the disease described by Gubler. It must be distinguished (at least as far as the naked-eye appearance reaches)

from the syphilitic disease of adults, of which many specimens have been before the Society. In these the organ is cicatrised on the surface, and contains distinct nodules of fibrous tissue; whilst in the disease of children, as in the present specimen, the whole organ is infiltrated by a new material, and it consequently becomes, as described by Gubler, hypertrophied, globular, and hard, resistant to pressure, and even when torn by the fingers its surface receives no indentation from them; it is also elastic, and when cut creaks slightly under the scalpel. This was the form of disease in the present specimen. It came from a syphilitic child, a month old, in whom the liver could be felt enlarged during life, and when removed weighed a pound and a half. On microscopic examination the whole organ was found to be infiltrated with fibrous tissue, but without any material destruction of its proper structure."

In a previous volume, Dr. Wilks, to whom we owe so much in respect to our knowledge of visceral syphilis, had described one of the first cases noticed in this country of disease of the liver in connection with acquired syphilis. In this instance a man of thirty-nine, who had long suffered from the disease, died of very extensive affection of the cranial bones. His liver was puckered with cicatrices, and contained about fifty scattered nodules, about the size of peas, which were round, hard, and white. It was a form of cirrhosis, in which the new fibrous tissue, instead of being diffused through the liver in the course of its vessels, was deposited in distinct nodules. Both testes were found much wasted, their glandular structure being replaced by dense fibre tissue, which, in some places, was collected into nodules resembling those in the liver. It was a case of old disease, but the dates are not given.*

* Path. Trans., vol. viii. p. 241.

Commentary XCVII.*On the liquefaction of gummata.*

Dr. Wilks has asked our attention to the fact that, although syphilitic gummata of the viscera do not suppurate, and as a rule undergo caseation and contraction, yet that they sometimes liquefy. We are familiar with the fact that gummata in the cellular tissue, in the periosteum, and in the testis very frequently break down. Dr. Wilks states that he has met with a gumma in the brain which had liquefied into a material resembling cream, and he suggests that some cases of rapid disorganisation of the lung in syphilitic patients may have been due to disintegration of gummatous material. He mentions the case of a man suffering from syphilis who had a tumour containing fluid in connection with his liver. It was tapped, and several ounces of a curdy fluid were drawn off, which did not contain a particle of pus. In another case a woman, who had suffered from liver disease and jaundice for eighteen months, finally died of peritonitis. A tumour, the size of a cricket-ball, was found in her liver, filled with a bright yellow liquid, containing flocculent masses. It was surrounded by gummatous material.*

Commentary XCVIII.*On fibroid phthisis.*

Dr. Goodhart has mentioned several cases of fibroid phthisis, in which he believes that the cause was syphilis, and has given us a beautiful portrait showing small scattered gummata in the lung.† In this and some other instances tubercular processes were present

* Path. Trans., vol. xxix.

† See Plate 16, Path. Trans., vol. xxix.

in close juxtaposition with the gummata, and possibly secondary to them. Dr. Goodhart considered the changes characteristic of syphilis, but Dr. Douglas Powell expressed a suspicion that "the gummata might, perhaps, be constant, or blood-clots in connection with, hemoptasis."

Commentary XCIX.

On disease of the suprarenals.

We do not as yet possess many facts as to syphilitic disease of the suprarenal bodies. In Dr. Greenhow's able and elaborate report on Addison's disease, no mention is made of syphilitic disease of these organs. In the Pathological Transactions for 1884, Dr. Charwood Turner has published the case of a man, aged thirty-four, who died in the London Hospital ten years after syphilis. He had acute pneumonia and advanced lardaceous disease of liver and kidneys. The right suprarenal body was much enlarged, and its conditions were characteristic of syphilis. In connection with the case, Dr. Turner collects a few items of information from other authors on the same subject. Conditions of induration and fatty degeneration have been met with.

Commentary C.

Cases of syphilitic lung disease from inherited and acquired disease.

Dr. Greene has recorded the case of a child who died at six years old with extensive disease of one lung. There was great fibroid thickening, not only of the pleura, but of the walls of a large excavation in the upper lobe. This thickening was so peculiar that, without knowing the history, Dr. Greene formed and expressed the opinion that the child must have been

syphilitic. This opinion was confirmed, in so far as the upper central incisors were found to be "small and markedly peg-shaped." The other lung was almost healthy, but showed a few minute tracts of fibroid induration. The spleen was much enlarged, and presented typical syphilitic thickening and puckering. The capsule of the liver was also thickened.

This case is of much interest, as showing the value attached by this distinguished pathologist to these conditions of fibroid induration as consequent on syphilis. It also shows strongly the value of the condition of the teeth, as furnishing confirmatory evidence, for no facts as to syphilis could be obtained from the parents.

Dr. Goodhart has published a case in which, in a woman of fifty, cavities had formed in the lung, which had thick fibroid walls. The fibroid changes extended irregularly, and in one patch a mass of tissue was sloughing. Dr. Goodhart raises the question as to whether such changes may not be regarded as indicative of syphilis, even in the absence of confirmatory evidence. In this instance there was no history, but the patient had scars on the legs, thickening of the capsules of both spleen and liver, and a softening gumma in the latter.

Commentary CL.

On narrowing of the larger air tubes after syphilitic ulceration.

A few statements must be made respecting the effects of syphilis in producing narrowing of tubes and orifices. This is most frequently noted in the case of the arteries, in which it is very common, and not infrequently widely diffused. In speaking of paraplegia I have mentioned the opinion of some, that softening may occur from starving of the cord by general arterial stenosis. Attacks of hemiplegia, in connection with

arterial disease, are probably seldom due simply to narrowing, but rather to thrombosis, as a complication of arterial thickening.

Narrowing of the larynx is not by any means uncommon as a sequel to syphilitic ulceration, and often necessitates tracheotomy. In rare cases narrowing of the pharynx may proceed to such an extent as to cause, not only difficulty in swallowing, but to threaten suffocation during the act. A few cases of narrowing of the trachea itself are on record. Mr. Pugin Thornton has recorded in the *Pathological Transactions*, 1874, the case of a man who had complete syphilis in 1871, and in whom the larynx was affected ten months later. During the next year he was repeatedly under care, with difficulty of breathing, which was not wholly relieved by tracheotomy. This operation was performed during an attack of extreme dyspnoea, which had occurred whilst walking in the street. He died within three years of the primary disease, and the post-mortem showed, not only laryngitis, but the results of ulceration of the trachea, extending as far down as its bifurcation. About the fifth ring of the trachea a cicatricial web was stretched across, with an opening through it sufficient only to admit of a No. 8 œsophageal bougie.

Dr. Gulliver has also published a case of unquestionable syphilis (seven years before), in which an annular stricture of the trachea was found just above its bifurcation. There were also scars of old ulcers in the lower part of the trachea, and in both bronchi.

Dr. Morell Mackenzie, in 1870, brought before the *Pathological Society* a specimen of contraction of the trachea in its upper part consequent on syphilitic ulceration. It was so much reduced that it would admit only an ordinary goosequill. The dyspnoea which had preceded death had been very severe, but of a paroxysmal character. The larynx was quite healthy.

The history of syphilis was denied, but there were deposits in the liver and kidney about the nature of which there could be no doubt, and there were nodes on the tibiae.

Commentary CII.

Diseases of the lung ; syphilitic phthisis.

In rare instances, syphilis, at any stage, may attack the lungs. In the early stages it produces only temporary congestions, but in the later ones local inflammations of the parenchyma may occur, with tendency to aggressive changes. In some instances isolated gummata may present, but more usually the process is one of infiltration. The middle lobe is more commonly the seat of the disease than other parts, and it is seldom that both lungs are affected together. These facts give valuable help in diagnosis. As compared with tubercular phthisis, the processes of syphilis are more rapid, but if the disease be allowed to advance, very similar changes may accrue, and the symptoms may be such that diagnosis is exceedingly difficult. It may be wise in all cases in which local and unusual lung changes show themselves in those who are known to have suffered from syphilis within a few years, or who have inherited it, to give mercury. Such treatment, if conducted with caution, can seldom do harm, and in some cases very triumphant results have been obtained (Fournier and others). The final results of syphilitic disease of the lung probably approach most frequently those known as fibroid phthisis ; but in some cases excavations are formed which resemble those of tubercle. The search for bacilli should, of course, never be omitted.

Commentary CIII.*Syphilitic disease of arteries.*

Although, unquestionably, syphilis may affect any part of the organs of circulation, its most definite and frequent attacks are witnessed in arteries of medium size, and especially in those of the brain. It but rarely affects the heart, or the large vessels. We encounter it most often as a chronic form of arteritis, which begins in the intima, but rarely involves the endothelium, which is sometimes attended, or even preceded, by similar changes in the adventitia, but only affects the middle coat in a secondary way. The common event is sclerotic thickening of the affected part, with bulging into the lumen of the vessel or great narrowing of it. Sometimes a considerable tract of the artery is involved, and in others the areas are limited, but multiple. It differs from atheroma in this marked feature, that while the latter weakens the vessel, and favours dilatation or pouching, syphilis causes induration and contraction. It is, therefore, only very exceptionally a cause of aneurism; nor does it commonly produce ulcerations which are likely to shed embolic material into the blood current. On the other hand, it is a frequent cause of occlusion, and of local deprivation of blood supply, thus, in the case of the brain, producing hemiplegia and other forms of paralysis.

Commentary CIV.*"Condylomata of the heart."*

In the magnificent collection of plates, published by Auvert, in Moscow, is one showing what are named "condylomata of the heart." Two portraits are given. In one (Fig. 1, Plate xc.) there is a large vegetation on the free edge of one of the pulmonary

semilunar valves. It is as big as the kernel of a hazel nut, and looks florid and soft. The rest of the valve is not thickened. The patient was a man of thirty-eight, who had suffered from syphilis three years before, and who had had condylomata at his anus.

Fig. 2 of the same plate shows a condylomatous ulcer" placed just between two of the semilunar valves of the aorta. The specimen was taken from the body of a young man, who had suffered severely from syphilis. The ulcer is florid, with elevated edges and surface, and is about the size of the end of the little finger.

There may be some doubt in these cases as to whether the lesions really were syphilitic, but the suggestion that they were is a very important one, and the plates are of great value.

Syphilitic disease of the valves of the heart.

I find another example of supposed syphilitic disease of the aortic valves recorded by Dr. Leared. The patient was aged thirty, had not suffered from rheumatism, but had been treated for syphilis eighteen months previously. He died with dropsy. On slitting open the aorta, a well-defined, elevated, condylomatous-like mass, the size of a sixpence, was seen projecting

Commentary CV.

Syphilitic tumour of the heart.

Mr. Shattock, in 1880, exhibited, at the Pathological Society, the heart of a syphilitic infant, in which, in connection with the right ventricle, there was "a small circumscribed slightly nodular and granulated ovoidal tumour." He designates it as "a mucous tumour of the heart" syphilitic gumma. It involved the under side of the cusp of the pulmonary valve. The other organs of the body were healthy.

from the posterior part of the vessel, just above the valve. Dr. Burdon Sanderson, and Dr. Cayley, who reported on this case to the society, do not appear to have felt quite certain as to its syphilitic character.

Commentary CVI.

Syphilitic perforation of aorta

As already noted, syphilitic disease of the arteries does not usually result in ulceration. We meet, however, with exceptional cases. A sudden death may occasionally occur from perforation of the arterial walls. Of this there is a specimen in the museum of the London Hospital, presented by Dr. H. E. Sargent. The patient was a prostitute, aged thirty, who had died suddenly whilst at breakfast, having had no previous symptoms of thoracic disease. The pericardium was full of blood, consequent upon a deep excavation of the arterial wall the size of a large pea, which had sharply cut and overhanging edges. There were many patches of disease in the descending aorta and the larger arterial trunks. The intima was especially thickened, but the middle and external coats were also involved. This case is described by Dr. Charwood Turner in the Pathological Transactions for 1885.

Commentary CVII.

Obstructive disease of the central arteries in an early stage of syphilis.

Dr. Sharkey has recorded in the Pathological Transactions a case in which a man died from disease of the cerebral arteries in the seventh month of syphilis, and whilst he was still covered with eruption. It is of much interest to myself to know that the disease was quite symmetrical, affecting the middle cerebral on each side. It had begun on the external

coat, and spread inwards. Both the arteries were occluded, the right completely so, and there was softening of the parts supplied by them. The patient had suffered from headache, and was under syphilitic treatment, when he rather suddenly passed into a semi-comatose condition, with convulsions of all the limbs. In this state he remained until he died, about a week later.

Commentary CVIII.

Ulcers in the small intestines from syphilis.

Very few facts have been recorded in proof of syphilitic infections of the intestines, if we except the immediate vicinity of the outlet. Dr. Norman Moore has published a case in which, in a woman aged forty-six, in addition to other unquestionable syphilitic lesions, there were numerous thickened patches in the small intestine, some ulcerated and some showing scar tissue and contraction. The contraction was sufficient to have caused some amount of obstruction.

Commentary CIX.

The spleen in hereditary syphilis.

In syphilitic infants born dead, or dying soon after birth, the spleen is very frequently found enlarged. The increase in size and weight is due to general hyperplasia, the stroma being thickened, and the sheaths of the arteries infiltrated. Birsch Hirschfeld states, as the result of his examinations, that the spleen of such infants is usually twice its normal weight in relation to that of the body.

That the spleen is frequently enlarged in syphilitic infants who survive is an observation which has been enforced by Dr. Thomas Barlow, as the result of his inquiries at the Hospital for Sick Children. †

* See Bäumler. † See Barlow, Path. Soc. Trans., 1877.

Commentary CX.*On gummata in the testes from inherited syphilis.*

Gummata in the testes of young children who inherit syphilis are not very uncommon. I possess a beautiful drawing, showing this condition in a boy who had also gummata in one lung and notched teeth.

In 1881 Mr. Furneaux Jordan wrote to me that he had just removed a testis for "so-called strumous disease" from a man, aged thirty-eight, who had many nodes and the most markedly notched teeth that he had ever seen. There were eight or nine separate nodes in the skull, one on each tibia, and a very large one on the right humerus. His physiognomy was characteristic. There was no history of acquired syphilis.

An interesting example of syphilitic disease of the testes in connection with hereditary taint was brought before the Pathological Society by Dr. Wilks in February, 1865. The child, who was five months old, was suffering from the ordinary symptoms of syphilis. Both its testes were much enlarged. Three months after the exhibition, under mercurial treatment, all symptoms had disappeared, and the testes had returned to their natural size.

Commentary CXI.*Diseases of the rectum in connection with syphilis.*

Amongst the local diseases which appear to be, in some indirect way, connected with tertiary syphilis we have non-malignant strictures of the rectum. This form of stricture is much more common in women than in men, and it is the general testimony of observers that a large majority of those who suffer from it have, at some former period, had syphilis. On this latter point Mr. Allingham, in his valuable work

on diseases of the rectum, has supplied us with a considerable collection of clinical facts. Two difficulties present themselves; first, in a certain number of cases there is no reason to suspect syphilis, and yet the disease is, for the most part, of the same character; and secondly, in the cases in which there is a conclusive history we can seldom do any good by constitutional treatment. Probably we shall not be far from the truth if we hold that those who have had syphilis, are, when certain exciting causes come into action, more than others liable to chronic inflammation of the coats of the lower bowel. In women, the chief exciting cause is probably the contusion of the bowel in child-birth, and hence the preponderance of this disease in females. In others, the irritation of fæcal accumulations may be sufficient, and in a few, possibly, the disease is spontaneous, so far as the absence of any assignable local influence is concerned. In this respect disease of the rectum occupies much the same position as that held by psoriasis palmaris, sclerotic hypertrophy of the tongue, and many other affections, which occur chiefly in those who have had syphilis, but which are yet very much influenced by local irritation. My impression is, that in proportion to the extent of the disease, and especially to the thickening present, may we more or less confidently diagnose syphilitic antecedents. When once disease has been set up in the rectum it is perpetuated and aggravated by the normal functions of the part, in this respect supplying a further parallel to what we observe in the case of the tongue.

It is not often that we witness any disease of the rectum which can be definitely diagnosed as syphilitic, and which proves amenable to specific treatment. Occasionally such disease is, however, met with in association with undoubted syphilitic disease in other parts, as, for instance, in the tongue, throat, or larynx.

I possess several drawings illustrating this association.

Commentary CXII.

Tertiary affections of mucous membranes

The disease known amongst French surgeons as *esthiomène*, a chronic, hypertrophic, and ulcerative affection of the external genitals in women, appears to occupy much the same position in reference to syphilis as that which I have ventured to claim for disease of the rectum. Most of those who are its subjects have had syphilis, yet it is not usually curable by specifics. Like the non-malignant diseases of the rectum and tongue, there is reason to believe that it sometimes ends by becoming cancerous.

Not much is, I think, known as regards affections of the other mucous tissues in the tertiary stage of syphilis. We do not recognise any form of tertiary syphilitic disease of the bladder or of the small intestines. Nor is there much more clinical evidence respecting affections of the œsophagus or stomach. My colleague, Dr. Fenwick, who is an authority on that subject, tells me that he thinks he has seen post-mortem evidences of syphilitic sclerosis of the coats of the stomach, and that he is accustomed to diagnose a syphilitic form of dyspepsia in probable association with such a condition. I do not know of any museum specimens nor of any published observations, but I have witnessed, in a single case, most distressing stomach pain after food in association with extensive syphilitic induration of the tongue.

Commentary CXIII.

Can gummata in the viscera ever suppurate?

It is well known that suppuration but seldom occurs in internal gummata. Those which occur in

the cellular tissue, and in connection with bones, not unfrequently soften and break down, and the final condition is often that of an abscess containing both pus and débris of tissue. Respecting the rarity of this event in the viscera, I may, however, quote the authority of Dr. Moxon, who writes, "The resistance to suppuration which syphilitic matter generally shows is one of its main characters, and is seen in the whole course of the disease, from the callous induration of the glands in the groin to the common syphilitic deposits in the liver, brain, or testis. Softening of the matter is so rare that it may be assumed generally that syphilitic disease will not soften."

My own impression is that in these remarks Dr. Moxon somewhat overstates the case, and that inflammation in or around gummata is more common than he would have us believe. His remarks are made in connection with a case in which many large masses were found in the liver which resembled sarcomatous tumours softening in the centre. They were enclosed in what appeared to be fibrous cysts, and were much like brain matter in consistence. In their centre was some pus-like fluid. In the largest of them there was a quantity of bile in its centre, a biliary duct having been opened. One testis showed very characteristic (gummatous) syphilitic orchitis.

Commentary CXIV.

Supposed acute inflammation of the spleen in connection with syphilis.

In the Pathological Transactions of 1871, Dr. Moxon records the case of a woman, aged twenty-nine, in whose liver were found "large tracts of potato-like syphilomatous growth, having all the qualities of these growths in perfection." The spleen was in a remarkable state. It weighed 17 oz., and its capsule was

irregularly thickened. A considerable part of it lying irregularly under the capsule was blackish, as if from effusion of blood, the central part being soft and pulpy. Dr. Moxon compares it to the red hepatisation of the lungs, and suggests that we may have an acute syphilitic pneumonia and an acute syphilitic splenitis.

Commentary CXV.

Syphilitic diseases (gummata) in muscular substance of the heart.

Dr. Cayley has recorded in the Pathological Transactions for 1875 the account of a post-mortem on a gentleman, aged 28, who was found dead in bed, probably in consequence of an overdose of chloral. He was known to have had syphilis some years before, and interesting conditions were found in his heart. The following is Dr. Cayley's description: "The pericardium was not adherent. The heart was somewhat enlarged, this being mainly caused by hypertrophy of the left ventricle. Embedded in the wall of the left ventricle near the apex were several roundish dense nodules of a whitish colour, which projected both externally and into the cavity of the ventricle. The base of the muscoli papillares was partly invaded by the growth. There was no general fibroid change in the ventricular wall. On microscopical examination the growth was found to consist of small round cells embedded in fibrous stroma. At one or two points caseous transformation had occurred, and these spots consisted of amorphous débris."

Plate 29 of Ricord's Atlas is a good illustration of scattered gummata in the substance of the heart. It is from a patient who had possibly had syphilis two or three times.

Commentary CXVI.

Syphilitic pleurisy with fibroid pneumonia. Dr. Moxon's views as to syphilitic simulation of phthisis.

Dr. Moxon has described a very peculiar case, in which the conditions of pleurisy with pneumonia were sufficient, together with the state of the liver, to lead him to diagnose syphilis, although no history whatever was forthcoming. The man, indeed, died from a crush of his spinal cord whilst engaged in heavy labour, and the case shows, in a remarkable manner, what may be undertaken in spite of extensive organic disease. None of the man's fellow-workmen knew that he ailed anything. The post-mortem showed the lower half of the left pleura coated with recent firm lymph. The left lung, beneath this, showed a state of grey fibroid change. There were thick masses of fibroid puckering extending deeply into the lung substance. For the detailed description of the changes the reader must refer to Dr. Moxon's description of them in the Pathological Transactions of 1870. The interest of the case for my present purpose is in connection with the belief that the changes were of syphilitic origin. The evidence on that point is the following: The liver was very large, highly lardaceous, and marked by cicatricial patches like those on the lung. The spleen, suprarenal capsules, and kidneys were lardaceous. "Both testes showed excellent specimens of syphilitic fibrous orchitis."

In reference to the name fibroid phthisis, Dr. Moxon insists that the disease did not bear any resemblance to common phthisis, since there were no tubercles, nor any caseous pneumonia; and the disease extended from below upwards continuously, and not in discrete patches. He states that he has repeatedly seen ordinary tubercular phthisis in syphilitic subjects

without any fibroid character being assumed. He holds that gumma in the lung are of rare occurrence, and seldom large, and that the common condition in the lungs of syphilitic subjects is a chronic white hepatisation, with more or less induration spreading usually from above downwards. This hepatisation is liable to gangrene, and cavities may be thus produced much like those of tubercular phthisis.

Commentary CXVII.

Syphilitic disease around small arteries in brain producing induration.

In reference to syphilitic disease of the small arteries of the brain, Dr. Clifford Allbutt, of Leeds, has made an important observation. In the brain of a patient who died with syphilitic disease of many organs, he found several scattered masses, varying in size from a pea to a walnut, which were somewhat indurated. On microscopic examination the induration appeared to be chiefly due to cell effusion into the perivascular canals. This effusion caused great thickening around the arteries, embedding them in green transparent granular matter.

Commentary CXVIII.

On syphilitic disease of arteries in general.

Syphilitic disease of arteries is very common, and the cerebral vessels are those most frequently affected. Narrowing of the arterial channel is the first condition produced, and this may or may not lead to thrombosis and complete occlusion. The symptoms due to narrowing are vague, indefinite, and varying, whilst those consequent on occlusion are generally of the nature of "a fit," or "stroke." So long as narrowing only is present, complete recovery may easily result ;

but if a fit have happened, local softening may follow, and persisting paralysis may occur. With narrowing, such symptoms as giddiness, aphasia, forgetfulness, brain clouds, or slight attacks of muscular spasm are frequent. It is not improbable that often, unless the disease is symmetrical, there may be no symptoms at all. Everything depends upon the extent to which the narrowing has progressed. In extreme cases the brain region involved may be deprived of blood supply and starved, almost as efficiently as if plugging had occurred. I have already mentioned that when finally the syphilitic fit occurs, it is often not sudden, but is preceded by variable numbness and tingling in the limbs about to be involved. This stage of threatening probably implies that the blood supply is all but cut off by thrombosis, but not absolutely. I have received this description of the advent of the attack from many patients who subsequently became affected by hemiplegia.

In all cases in which patients who have had syphilis suffer from anomalous head symptoms, specifics should be tried; and I quite agree with Dr. Buzzard in the opinion that mercury is to be preferred to the iodide of potassium. It is more efficient, and if used in small doses and cautiously, it depresses much less. I have seen many cases in which the iodide did not cure, and which benefited at once when mercury was used. Administration by the mouth is usually as efficient as inunction, but if a rapid effect is desired, the latter may be preferred; or the hypodermic injection, the most rapid of all methods, may be used.

Commentary CXIX.

On periphlebitis as a consequence of syphilis.

There is a curious form of periphlebitis due to syphilis which is often very chronic in its course, and

produces very peculiar changes. It is attended by great thickening around distended and convoluted veins, which become matted together in a cake-like mass, and adherent to the skin. Sometimes suppuration occurs and portions of cellular tissue slough, producing characteristic sores, but in other cases the condition may last, in a state possibly of partial cure by specifics, for many years. It always tends to spread. Slight forms of syphilitic periphlebitis are not uncommon, and are usually seen in the legs. I will describe two exceptional cases.

In the case of a Swedish gentleman who was sent to me by Sir Joseph Lister, there was an area on the left thigh and buttock as large as both hands outspread, which was greatly thickened and cake-like. Its surface was uneven, hard in parts and doughy in parts, whilst here and there thickened veins of considerable size could be easily distinguished. The margins of the patch were tolerably definite, but from them passed enlarged veins. In parts there was a sort of subcutaneous scarring, which had produced depression. The history was that the condition had been slowly extending for four or five years, and that a complete attack of syphilis had preceded it.

In the case of an emigration agent sent me by Dr. Calthrop, of Holloway, the state of things was yet more peculiar. The whole of the right lower extremity was involved. The skin and subcutaneous tissues were irregularly thickened and lumpy. In parts there were deep depressions (subcutaneous scars), whilst in others the thickening amounted to an inch or more. At first sight I thought there had been extensive ulcers, but I was assured that this was not the case, and that the depressions had formed without any external sore. In many places there were thick masses of convoluted veins, which were dilated and plugged. In some parts the skin was

dusky and red, but in most it was tallowy. I was told that the condition had commenced six or eight years ago in the leg, and had gradually spread from the leg to the top of the thigh. The attack of syphilis was twenty years ago, and the patient was in excellent health. I believe that nothing in way of specific treatment had been adopted for its cure. The patient came to me, not so much on account of his leg, as for a patch of dusky erythema which covered one cheek. This latter was very peculiar, and was, I do not doubt, a syphilitic simulation of lupus erythematosus. The patch spread from the left ear upon the cheek, and was as large as the palm of a hand. It was slowly serpiginous and quite without ulceration. Its border was raised, and slightly, but distinctly, œdematous. There was pitting on pressure.

Commentary CXX.

On syphilitic affections of the testicle.

The most frequent form of disease of the testis is a chronic gumma of the gland itself, occurring from two to four years after the primary symptoms. The gland may enlarge to a great size, and is usually evenly rounded. Sometimes only one testis is affected, and sometimes both. The tumour in many cases feels lighter than any other form of new growth, and even than hydrocele, but in others it is not so. The vas deferens is seldom thickened. However large the tumour, and it may reach the dimensions of two fists, there is always much hope that it may be reduced to normal bulk by specific treatment. This occurred in the instance of the largest that I ever saw, and after I had, on account of its bulk and the inconvenience attending it, advised excision. This form of chronic sarcocele may have various terminations. The most ordinary one is complete resolution, as just noted,

leaving the gland somewhat indurated and lumpy, but still competent for its functions. In other cases suppuration and abscess may occur, and in others a condition of fibroid atrophy. Although the most usual time for syphilitic testicle is about the end of the second year, it may happen either much earlier or much later. The earlier it occurs the greater is probably the risk of suppurative inflammation. In the very rare cases in which it is met with amongst the secondary phenomena, it is almost always with great severity of the disease, and with tendency to acute inflammation. I have seen both testes inflame and enlarge enormously in association with a severe rupial eruption and phagedænic ulceration of the nose. Abscess occurred around the testes, and on both sides the gland was exposed. These conditions developed within six months of the chancre, and before it had quite disappeared. The patient recovered well under specifics, but was covered over with the scars of his rupia. In another case in which a man died with gummata in the substance of his heart and his secondary eruption still out, we found gummata in both testes. Ricord states that he has seen the testis affected in syphilis as early as the fifth month, and Berkeley Hill records a case which occurred in the sixth month in association with rupia and periostitis.

In the cases just referred to, the body of the gland was the part chiefly or solely affected. Many observers have noted in the secondary stage slight enlargements of the head of the epididymis, which rapidly disappear under treatment.

As a rule, the vas and the epididymis escape implication; but there are many exceptions, and we can by no means rely upon the position of the deposit as a means of diagnosis. It is often exceedingly difficult to distinguish between tubercular disease and gummata, and the same terminations may await both, with

the exception that specific treatment generally shows marked effect in those cases which are due to syphilis.

In cases in which the vas is enlarged, examination should always be made as to the existence of stricture. Cases occur in which there is a troublesome stricture, and in which enlargement of the vas appears to have preceded the orchitis, and to have spread from the urethra, and in which yet the resulting disease of the testis is of a syphilitic character. In these cases we may believe that the urethral irritation takes the part of an exciting cause, and brings out disease which, but for it, might never have been developed. In such it is necessary to treat both the constitutional taint and the local cause.

There are certain rare cases in which the vas and the epididymis alone suffer, and without any evidence of urethral disease. The vas behind the testis may become greatly thickened, and convoluted without any tendency to abscess or any formation of gumma, and may so remain for months or even years together. In some of these cases the history of syphilis is not clear and the effect of specifics not definite, but I believe still that they are usually in that connection, and are to be cured only by prolonged mercurial treatment.

Commentary CXXI.

On the occurrence of syphilitic disease of the testis after long periods of health.

Syphilitic disease of the testis may vary extremely as to degree of severity and as to the conditions of inflammatory action which attend it. As an example of one of the slightest forms I may mention the case of a politician, who consulted me some years ago for a few white patches on his tongue. They had developed rather suddenly, and they quickly disappeared under iodide of mercury.

He had gone through syphilis about seven years previously. Six months after leaving off the treatment for his tongue he came with a lump as big as a small hazel nut in one epididymis. It felt as much like tubercle as gumma, but it vanished under specific treatment, so that there could be no doubt as to its real nature. It is eight years since this occurred, and the subject of the case has ever since led a most active life, and been wholly free from indications of relapse. Few men have used their brains more vigorously and unintermittingly than he has, yet he has never induced the slightest symptom of disease in his nervous system.

The testis is one of the organs which is not unfrequently attacked suddenly after prolonged periods of absolute latency, and it sometimes happens that other organs or structures soon follow in the same course. The two following cases, in both of which lung disease which resembled phthisis, occurred with syphilitic sarcocele, present features of great clinical importance.

A gentleman, aged twenty-four, contracted syphilis in Ceylon. He had rash, sore throat, and loss of hair. He was treated with mercury and iodides for six months and got quite well. During the six years next following he had perfect health and never took a dose of medicine. Then occurred his first attack of malarial fever, and whilst it was on him his right testis swelled. An abscess formed and was opened; the result being that two months later the whole testis was extruded from the scrotum. In this condition specifics were commenced, and a complete cure resulted though with a somewhat hardened gland. After a while, however, the other testis enlarged. It also subsided under treatment, but was left much indurated. About six months after the first disease of testis he had hæmoptysis, and spat up a half a pint of blood.

This recurred a month later, and he lost flesh, and was considered to be in consumption.

He was under treatment for some time at a special institution for consumption, and was considered to have definite lung disease. On leaving this institution he came under the care of a surgeon who treated him for syphilis, and under the influence of mercury he got quite well, both as regards the chest and the testis.

Commentary CXXII.

Severe outbreak of visceral syphilis twenty years after the original disease; symptoms of lung disease and great cachexia; large sarcocele; complete recovery.

A gentleman at the age of twenty-five had complete syphilis. He took mercury and got well. Having been free from symptoms for five years, he married when thirty-one. Four children were born. He kept his health till he was forty-one, when he had an enlarged liver. Soon after this he had cough and expectoration, and became very thin. He was sent to Italy for the winter. During the next year he continued feeble, and was supposed to be the subject of chronic phthisis. When he was forty-four he was sent to Algiers, and on his return home was so ill that he was expected to die. Suddenly, now, one testis began to enlarge. He came to me with the testicle as large as two fists. Its disorganisation appeared to be so complete, and it was so serious an encumbrance to him, that I advised its removal. I was especially influenced in this decision by the fact that he had taken much iodide, and was in very feeble health. The iodide had much benefited him, but had not materially reduced the enormous testis. Whilst waiting for his decision as to the proposed operation, I ordered mercury. Under this remedy improvement

at once set in. The result was that his testis, after a few months, had returned to its natural size, and that all his chest symptoms had vanished. This cure was in 1882, and its subject has been ever since in sound health.

A curious fact remains to be mentioned. It is this, that whilst under the mercurial treatment, and when the testis first involved was rapidly diminishing, the other began to enlarge. It increased to a moderate size, and then again subsided.

There can be little doubt that in this instance the pulmonary lesions had been of a syphilitic nature. I cannot quote any stethoscopic data of my own, but the patient had been examined by distinguished specialists before he was sent abroad, and was considered to be the subject of advanced lung disease. Of this he has not now for several years had the slightest symptoms.

I do not know that I have ever in any other instance witnessed the subsidence of so large a gumma; the testis was so big that I certainly at first thought its cure almost impossible.

The case may serve as a good example of what we not unfrequently witness, a severe outbreak of tertiary symptoms after a long period of good health. Nearly twenty years had elapsed, during which a healthy family had been born. Then the disease attacked in succession several viscera, the liver, the lungs, and the testis, not affecting any superficial part. The cure carries with it a clear lesson, that in all obscure diseases of viscera in those who have at some former times suffered from syphilis, we ought to try the effect of mercury.

Commentary CXXIII.

On the size of gummata in relation to the period of the disease.

There certainly appears to be some relation between the size of a gumma (its tumour-like tendencies) and the period of the disease. Big gummata, which are either single or few in number and well localised, are usually met with in the late stages of the disease, that is, they are distinctly tertiary. On the other hand, when gummata are very numerous and widely scattered they usually remain small, and they generally occur in a comparatively early stage of the disease. This is illustrated in the case of the scattered deposits in the choroid.

CHAPTER VIII.

ON RELAPSES OF ERUPTIONS, AND ON CERTAIN ERUPTIONS WHICH SIMULATE SYPHILIS.

Commentary CXXIV.

On certain cases in which symmetrical eruptions on the trunk occur at considerable periods after syphilis; extreme difficulty of diagnosis.

THE diagnosis of secondary syphilitic eruptions is not usually very difficult. Some of those which occur in the latest, or tertiary, stages often puzzle us to a certain extent, more especially those which take a lupoid form.

There are, however, certain skin phenomena which occur in the intermediate periods concerning the real nature of which it is sometimes almost

impossible to be certain. Our patients, knowing what they have had, are usually most willing to believe that everything which happens to them afterwards is of a syphilitic nature. Nothing is easier than to favour this belief, and to prescribe accordingly, and thus it happens that eruptions really due to other causes are, not very infrequently, treated as if syphilitic for months, or even for years, together. If we are zealous to avoid errors in both directions, and neither to overlook syphilis, nor to treat as syphilitic that which is not so, we shall often find ourselves sorely perplexed. The questions involved are not infrequently even yet more important than those merely of treatment.

I had under care, some years ago, a young curate, who, when at College six years before, had the misfortune to contract syphilis. He was under my care during the primary and secondary stages, took mercury for a long time, and apparently got quite well. Having had an interval of four years of immunity from all symptoms, he, with my full consent, entered into an engagement for marriage. To his dismay, about three months before the day fixed, he began to observe certain brown patches appearing on his neck, arms, and trunk. In extreme distress he came up to town to ask me what they were. He, of course, believed them syphilitic, and declared that his prospects and his happiness were for ever blighted. Let me say that excepting the eruption he was in perfect health, and had for long been so. The patches were of a brown tint, somewhat abruptly margined, and in size from a sixpence to a shilling. They occurred symmetrically, and were most abundant on his neck, upper part of chest, and arms. They were dry, unattended by thickening, and very slightly scaly. I half-hoped that they might be a peculiar form of ringworm or pityriasis, and scraped some flakes of epidermis for microscopic examination.

No fungns could be found. We must note that we had to deal with a symmetrical eruption, and that it was six years since the date of the primary disease. Nothing, in my experience, is less common than for a symmetrical and general eruption, due to syphilis, to show itself under such circumstances, and after so long an interval. I stated candidly to my patient that I could not speak positively, but as the question was of such momentous importance for him, I advised him to take mercury. This he did in fair doses for about a month, and during that time the eruption, instead of receding, decidedly increased. It remained restricted to the arms, root of neck, shoulders, and trunk, the parts covered by his under-vest. This distribution and limitation led me to suspect that it might be due to the vest. I found, however, that he had made no recent change in the material of these garments, that he had not had any new ones, and that he did not wear them at night.

He left off the mercury on June 10th, and at this date I made him get silk vests and take arsenic. He also now began to use a solution of liquor carbonis with lead. This lotion he used most liberally, sponging himself for two or three hours every day. In a fortnight from this time he was much better, and in a month the eruption on the trunk was quite gone, not leaving a trace.

On July 15th I found him quite well, excepting that a few patches had appeared behind his knees. These were irregular in form, of pale red tint, and slightly scaly. I now succeeded in convincing him that the eruption was not syphilitic, and persuaded him to go on with his marriage engagement. He was married a few weeks later, having at the time a perfectly clear skin.

I have seen this gentleman recently, and learnt from him that a month after his wedding he had a return

of his eruption, but it again soon disappeared under use of the tar wash. At the time that it returned he was wearing silk next his skin. He was not out of health, and could assign no cause for the occurrence. He is now quite free from it. His wife has borne a healthy infant, which is now a year old, and has shown no symptoms.

I may own that I am at some loss to give a name to this eruption. In general appearance, colour, etc., it was exactly like a syphilide. Although arranged as if due to the irritation of the vest, and restricted to the parts which the vest touched, yet it will be seen that the evidence on this point breaks down. The patient had not been wearing anything to which he was not accustomed, and although the rash disappeared when he took to silk, yet it returned subsequently. It is to be noted also that in its latest stage the thighs, and even the popliteal spaces, were affected. It was not influenced by mercury, and its final complete disappearance, either spontaneously, or from the effect of very simple measures, seems to establish the negative as regards syphilis very conclusively. It is also, I would submit, most exceptional to see a syphilitic eruption freely out on the trunk and not affecting the legs, fore-arms, or face in the slightest degree.

I have seen several other examples of an eruption, almost precisely similar to that described in the preceding case, and in more than one have had to encounter just the same difficulty in deciding whether or not it was syphilitic.

The case of Captain K. is of much interest in reference to this subject. This gentleman called on me in February, 1885, respecting an eruption which had been coming out for a fortnight, and which now covered his trunk and upper parts of arms and thighs. He had been under my care for complete syphilis four years before, and after an interval of health of three years

he had just married. He was naturally much dismayed at the appearance, under such circumstances of an eruption which he regarded with the utmost suspicion.

The eruption was mainly a punctate erythema. When the skin was stretched every trace of the spots disappeared. Yet many of them were of considerable size, and almost acuminated. The majority were very small spots, of a rather dusky-red tint. They looked exceedingly like a syphilide. The symmetry was exact. The rash was so copious that it almost covered the affected parts. The other parts of the limbs, and his head and neck, were quite free. The parts affected were precisely those which his vest touched, and I learned on inquiry that he had recently (that is, a month ago) got new vests of thicker woollen than he had before worn. He had experienced some irritation from these vests, and since the eruption had been out it had itched a good deal. Taking all the facts into consideration, the symmetry and localisation of the eruption, the long period of good health since the syphilis, and the absence of other symptoms, I ventured an opinion that the rash was not specific. He was advised to wear silk vests, and a spirit lotion was ordered with which to bathe the skin.

Three days later the eruption was more fully out. The little spots had become patches, and were more dusky in colour. It had also extended down the arms to the elbows, and covered the upper parts of the thighs. It was still an erythema, and disappeared on pressure. It looked in all respects exactly like an early secondary syphilitic eruption, but there was no sore throat, the face, legs, and fore-arms were free, and it was four years since his chancre. I held to my point that it was not syphilis, and assured him that it would go away, and that he need have no fear for his wife.

After another three days the eruption had somewhat changed. The patches were yet larger, and were beginning to desquamate, and their dusky colour could no longer be removed by stretching the skin. Some spots were now coming on the lower parts of the thighs, and even on the legs, where of course his vests did not touch. Besides, he was now wearing silk.

I did not see Captain K. quite to the end, but at his last visit (March 3rd), under the simple treatment indicated, the eruption was rapidly fading on his trunk. It remained out on the legs and fore-arms, where it had developed most recently. A fortnight later he wrote to me that he was quite rid of it (March 22nd).

It will be seen that in this case the eruption was not quite identical with that described in the preceding one. It began as an erythema, a dusky roseola, and it ended by desquamation, whilst its patches had never been either ringed or semicircular. They were "blotches," with rather ill-defined margins. In spite of the fact that the eruption spread ultimately to the legs, I am inclined to think that was due to the irritation of the underclothing. It is by no means rare to see a skin disease, which is distinctly due to a local cause, spreading far beyond the limits of the direct influence of that cause. A case which came very closely indeed to a parallel with Captain K.'s was one of which I am very sorry that I have preserved only a fragmentary note, and cannot give the termination. Its subject, should he chance to read this, may perhaps be able to help me. Dr. Z., had, in his first syphilis, a copious roseola, but nothing more. He subsequently used mercury in one or other form for two years, but during the greater part of that time had no symptoms. Two years after he had left it off (during which period he had been perfectly free) he came to me much alarmed by an eruption which had

suddenly appeared. It was on his chest, side, and back, and consisted of irregular areas of dusky erythema. They varied in size from a sixpence to a crown piece, but were seldom quite round. Their margins were ill defined.

I can recall several examples of this eruption which in past years puzzled me very much. In particular, I remember a young woman who attended for some months at Moorfields for iritis of one eye, which I believed to be arthritic and not syphilitic. She was apparently very respectable, but she was good-looking and unmarried. She had on her chest and trunk a nummular eruption of brown tint, which desquamated. Every one who saw this eruption thought it syphilitic, and although there was no corroboration of the suspicion excepting the iritis, it seemed best to give mercury. The eruption was limited to the trunk, and it underwent no changes. It did not in the least fade under the specific. The girl, at length getting to know what we suspected, begged that she might be examined in any way that would clear her character. The result of this examination convinced me that she had not had intercourse, and that she had no other signs of syphilis excepting the eruption itself. I believe that eventually the eruption disappeared, but it was not until it had remained out several months. I do not remember whether attention was paid to the question of underclothing. The case occurred many years ago, before I was so well aware as I now am of the importance of this latter point.

Another more recent case, in all external features exactly like the last, occurred in a young and healthy gentleman whom I had treated for syphilis three years before.

Commentary CXXV.

On certain eruptions on the trunk, probably due to the irritation of woollen vests, which look like syphilides, and are often mistaken for them.

I attended some years ago a provincial solicitor, who had well recovered from syphilis, and to whom I gave permission to resume cohabitation with his wife. He did so, and unfortunately resumed also other associations. Six months later he came to me in a most unhappy and complaining state of mind, thinking that I had given him an unauthorised opinion. He was sure that he was not well, and that he was still a source of contagion. I asked if he had had any return of symptoms in himself? "No." "Had his wife suffered?" To this he replied in the negative also, but added that a lady, not his wife, had contracted the disease from him, and was now "covered with a copper-coloured eruption." Finding on further inquiry that this lady had never complained of any primary sore, that he himself was still absolutely free, and that his wife had not suffered the slightest inconvenience, I felt justified in assuring him that his paramour had, in all probability, not contracted syphilis from him. Either, as was very probable, she had not got it at all, or she had obtained it from some other source. After some weeks' delay the lady came up to London that I might see her. She had been under the care of a local surgeon, and had been taking specifics for a month, and the eruption was no better. I found her chest, shoulders, arms, and trunk covered with dusky nummular patches, almost as big as halfpennies, and very slightly scaly. They were limited to the regions which her vest covered. She had recently purchased some new vests, warmer, and containing more wool,

than those which she had worn before. She had not a spot on the lower extremities, hands, or face; not the slightest sore throat; nor did she feel out of health. I do not think that I ever saw a syphilitic eruption so copiously out on the trunk as this was, and absolutely absent from the lower extremities. I therefore told my patient that I did not think that her eruption was due to "blood poisoning," and advised her to give up medicine, wear silk next her skin, and use a mild ointment. In a fortnight her eruption had almost wholly disappeared.

The rapid recovery in this case, taken with the fact that the patient had never, from first to last, any other indications of syphilis, may, I think, enable us to feel certain that this eruption was not specific. Probably it was caused by the irritation of the vest.

Another case, almost exactly similar to that first related, was under my care about the same time. The patient was a gentleman under the care of Dr. Martin, of Somer's Place, with whom I saw him. This gentleman had, after a long treatment, recovered from an attack of syphilis, which had not been preceded by any known chancre. He had had rash and sore throat, had taken much mercury, and had been for a year quite well when his brown eruption began to appear. It was symmetrical, very ill-defined, but in main features like those of the preceding cases. No relapse of other symptoms of syphilis accompanied it. I did my best to arrive at a conclusion, but was unable to feel certain. After a few weeks' negative trial of simple measures, we advised Mr. R. to try the effect of mercury again, and under this treatment the patches disappeared. It is to be kept in mind, however, that their disappearance under this treatment by no means proves that they were really specific.

Another case in which I encountered this peculiar eruption was in the person of a young married

lady, to whom it was a source of extreme annoyance. She had a very fair skin, was very beautiful, and went much into society. An eruption of brown, slightly furfuraceous, nummular patches over the chest, shoulders, and trunk seemed to her an almost intolerable vexation. She was not in the least ill, and, as in the other cases, the patches did not itch. Here again the eruption was restricted to the parts named, and did not extend to the neck, face, or limbs. I used the microscope, but could find no fungus. There were no other symptoms suggestive of syphilis. At every visit I was pressed with questions as to what the eruption was, what was its cause, and when would it go away, and was obliged to admit that I could not answer any of them. After three or four visits I lost sight of my patient, and presumed that she had been disappointed, and had sought other advice. Two years later, however, she came to me for another ailment, and then told me that after her last visit the eruption had begun to fade and had rapidly disappeared. Her skin ever since had been perfectly clear of it, and she had been in good health. I had tried for her various non-specific remedies, the sulphur bath, tar lotions, and arsenic. It was under the two latter that the cure took place. She had also been advised to wear silk vests.

A young medical man, Mr. F. K., aged twenty-four, came to me March 26, 1885, with a rash which he thought syphilitic. It appeared almost impossible that he should have had syphilis, for he had not had any sore, nor had he exposed himself to risk for a year or more. He had noticed the eruption only one day. There was measles in the house where he lived. The eruption was confined to the parts in contact with his vest, and he had for two or three days been wearing next his skin a knitted vest of fleecy wool, very soft, but still a novelty to him. It being cold weather,

he had slept in it. There had been no perceptible irritation, and the eruption itself had not itched in the least. The eruption was copious, and chiefly on the chest and abdomen. It consisted of large, ill-defined, erythematous blotches. Some of them in their centres were very dusky and not unlike bites. The symmetrical arrangement, however, put bites pretty much out of question. His temperature was normal, and there was no eruption on the face. It may be suggested that possibly the vest localised an eruption of measles, which, but for it, might never have appeared at all.

Ten days later all trace of the eruption had disappeared. He had been wearing silk, but had taken no medicine.

Commentary CXXVI.

A desquamating erythematous eruption in a patient who had four years before had syphilis ; psoriasis palmaris present at the same time ; no benefit to the eruption from mercury.

A gentleman, named A., aged thirty-nine, was under my care in June, 1885, for a serpiginous psoriasis in his left palm. It was four years after the primary disease. He was a patient of Dr. Martin, with whom I had seen him in consultation in the first instance. I advised that he should take mercury to slight ptyalism, and I did not see him again until November 17th. He then came to me on account of a general eruption, which occurred chiefly on his loins, buttocks, and groins, but of which, in the first instance, some patches had appeared on his upper arms. It was a desquamating erythema in nummular patches, some of which tended to assume a ringed form. He was wearing a great thickness of flannel of several different kinds, but that which touched his skin was, he said, the same that he had worn all the summer. He had increased his clothing of late, and admitted

that it frequently made him perspire. Against the idea of his rash being of directly specific nature, we have the fact that he had been taking bichloride all the summer, and that under its use his palmar psoriasis had got almost well. In proof of the irritability of his membranes generally, it may be stated that he had a slightly granular condition of the lips and cheek, and that although he did not smoke, his tongue showed some slight sores on its sides.

Commentary CXXVII.

A desquamating erythema which became ringworm-like ; syphilis four years before possible ; history of a similar but slighter eruption two years before.

A gentleman, named G., aged thirty-three, was sent to me by Dr. P. in November, 1885. There was the history of a soft sore four years ago, but it had not at the time been followed by anything, and he had enjoyed good health ever since, with the exception that two years afterwards he had an eruption which resembled his present one. On that occasion he consulted a surgeon, who ordered a lotion, which in the course of about three weeks caused the eruption to wholly disappear. Nothing whatever remained of it, and he had no relapse until about three weeks before coming to me, when his present attack commenced. The patches were arranged on his arms, shoulders, and upper part of chest, and in the groins and upper parts of the thighs. Some of the spots looked exceedingly like ringworm, having desquamated in the centre, and presenting slightly raised edges. Others, however, were much less definite, and consisted of an erythematous area, varying in size from a fourpenny piece to a halfpenny, from which the epidermis was peeled in the middle. The arrangement of the eruption was symmetrical, and the parts attacked were those which his vest touched, but it

must be noticed that the greater part of his trunk was free. The vest which he was wearing was white, and of a soft texture, and he did not think that it had irritated him, but it was nevertheless a fact that the rash had come on just after he had changed from his summer vest to his present one. Mr. G. was intending to be married, and was therefore very anxious about the eruption, which he had been told was suspicious. I ventured to assure him that in all probability it was due to the irritation of his clothing. As in many other cases, however, its dusky colour, symmetrical arrangement, and tendency to become ringed were all features of great suspicion.

Under treatment by an alkali, and the wearing of a silk vest, the eruption very quickly and completely disappeared.

Commentary CXXVIII.

On symmetrical erythematous eruptions after long mercurial treatment.

Dr. J., of dark complexion, had a midwifery chancre in December, 1883. It was followed by a papular eruption and sore throat. No treatment was used until these symptoms appeared. He then took grey powder, twelve grains a day, and subsequently rubbed in the mercurial ointment, a drachm a day. Six months after the chancre his nails were affected, and we increased the quantity of mercury. He was never salivated, nor, indeed, in the least inconvenienced by the mercury. Being of dark complexion and in strong health, he resisted its influence to an unusual degree. All his symptoms, however, quite disappeared, and ten months after it was begun he left it off, being at the time in excellent health and wholly free from symptoms. Three weeks after its omission a symmetrical, dusky mottling appeared on his arms. It was an erythema only, and varied much in

vividness at different times. If the skin was rubbed, instead of its being increased, it almost disappeared. In some places obscure rings were formed. He said that it always showed most when he first got out of bed.

I have seen many cases exactly like Dr. T.'s, and the eruption is a very peculiar one. It is rarely attended by any other constitutional symptoms. It usually comes out a few weeks after the mercury has been stopped, and generally in those who have borne it well. The circumstance that the eruption is most visible when the skin is suddenly chilled by getting out of bed, and especially by taking a cold bath, almost always attracts the attention of the patient himself. The eruption often occurs in rings, and it is always most abundant on the arms, but frequently affects the trunk also. It is often exceedingly slight. It often recurs repeatedly, over long periods, and when it does so is seldom or never the precursor of anything worse. If mercury be given it usually disappears quickly.

Commentary CXXIX.

Other examples of erythematous eruptions recurring after prolonged mercurial treatment.

Mr. K., aged twenty-three, had, on February 26, 1879, a hard-based but suppurating sore at six weeks from date of contagion. The sore subsequently became very hard. We began mercury in small doses. On April 16 he had a small patch on one side of the palate. He continued mercury almost without intermission from February to November, and during that time never had the least eruption on the skin. In November he returned to his home in Germany, and I allowed him to discontinue treatment. In the beginning of the following February his rash came out. It was a

copious but mild lichen, and affected chiefly the thighs and abdomen. It was at first supposed to be "scarlet fever," but it persisted for nine months or more. It was chiefly visible after either a warm or cold bath. He was quite well, and had no other symptoms except a little rheumatism.

Mr. A. had his chancre in August, 1879, and I treated him by mercury from the end of October for six months or more. He had experienced a copious papular eruption during November. In July of 1880, a few weeks after suspending treatment, his eruption came out again. It was a very mild one and was soon cured.

Commentary CXXX.

A very peculiar eruption, which looked like syphilis, and occurred under suspicious circumstances, but which did not get well under mercury.

Mrs. H. was brought to me on December 5th, 1884, on account of an eruption. She had been married four months, and was possibly pregnant. I was told that she was seeking divorce from her husband, and was supposed to be suffering from "blood poisoning." She had an eruption over the trunk and limbs, which was reported to have appeared about two months after marriage. It consisted of dusky and slightly scaly patches, and my note made at the time respecting it is, "no one could distinguish it from a syphilide." Yet there were some facts which made me hesitate. She had had no primary sore, no enlarged glands were present, nor had there been any sore throat. She also stated that four years previously she had an eruption like the present one, which lasted some months. [Her mother said, however, that the two eruptions were very different.]

A fortnight later I ascertained that Dr. E., of C., had treated the former eruption, and that

he had considered it psoriasis. Although I thought it best to treat the eruption by specifics, I did not feel certain, and declined to give a definite opinion.

A fortnight later the eruption had not faded in the least under mercurial treatment. My notes now describe it as occurring "on the chest, abdomen, upper arms, thighs and legs, and consisting of copper-tinted patches as big as threepenny bits, slightly thickened, and peeling on their surfaces. A few of them showed slight scale accumulations. The notes continue, "I believe that ninety-nine out of a hundred would declare it unquestionably syphilitic."

As we had gained nothing from the internal use of mercury, I advised that inunction should be tried. This was done under the care of Dr. O., of S., and was pushed to slight pyalism. We still did not arrive at a definite solution of our difficulty. Under the mercury the eruption faded in the legs, but did not disappear on the body. She remained well in health, and wholly free from sore throat.

I had at one time thought that the eruption must be syphilitic, but after the incomplete result of the inunction treatment I felt again much doubt. In the beginning of February, 1885, we decided to give up treatment. She was now three months pregnant. She remained under Dr. O.'s care.

In June, 1886, I heard from Dr. D., of M., that Mrs. H. had for some time been under his care. An eruption which she had presented had been confidently diagnosed as syphilitic, but specific treatment 'had done it no good. It was confined almost entirely to the back and chest.

Dr. D. further informed me that the eruption which I had seen had never been quite well. He had at first given iodide of potassium, in increasing doses up to half a drachm, three times a day. No benefit

had resulted, nor had arsenic been more successful. Mrs. H.'s child had been born in August, 1885. Three days after its birth, and whilst being suckled by its mother, a rash of small red spots had appeared all over the body. A mercurial ointment was applied, which caused the rash to disappear in about fourteen days, and it had never afterwards recurred in any way. The child was now quite healthy, and very well nourished; it had four teeth, upper and lower incisors, and showed no signs of syphilis in any way. Thus, both as regards mother and child, the diagnosis must remain in doubt.

Commentary CXXXI.

Papular eruption resembling a syphilide, probably due to a new vest.

The following notes were taken Feb. 11, 1886: Mr. Godfrey R., whom I saw some weeks ago for dyspepsia, etc., comes to me to-day covered by a papular erythematous eruption. It has been out for a week. He has already been prescribed for on the hypothesis of syphilis. The surgeon whom he consulted told him that "it could be nothing else." He had, however, had no chancre, and says that he has not had intercourse for six months.

The rash consists of papulæ, from the size of a shot to that of a fourpenny piece. They are of coppery-red tint, and look exactly like a syphilide. They cover his abdomen, chest, back, upper parts of thighs, and upper arms. There are none on the face, forearms, or legs. Thus it is the vest regions which alone are affected. I examined the penis, groins, and throat, and found no trace of syphilis.

Mr. R. tells me that he is wearing a new vest; it is of white wool, and has never been washed. He began its use a week or so before the rash appeared,

and it tickled his skin a little. He did not sleep in it. He is not out of health; his tongue is quite clean, and he sleeps fairly. The eruption itches a little, but not extremely. He has had gonorrhœa, and still has gleet, but he has never had syphilis. He has not been taking copaiba. I advised Mr. R. to give up the iodide which had been prescribed, and to get a silk vest. He soon got quite well, and no doubt remained either on his mind or my own that the eruption had been caused by the vest.

Commentary CXXXII.

Symmetrical eruption (nummular pityriasis) some years after syphilis, lasting in spite of treatment for two years (probably not syphilitic).

The case of Mr. O. presents some interesting features. He is a surgeon in excellent health, of dark complexion; has been married about two years, and has a healthy child. His age is thirty-seven. It is probable that he had syphilis about seventeen years ago, but at that time he had no secondary symptoms, excepting psoriasis palmaris. He took mercury for some months, got quite well, and had no reminders. For two years past he has been troubled by a sort of nummular pityriasis, which is quite symmetrical. It began first on his fore-arms after he had been much exposed, rowing in a hot sun. Then patches appeared on his arms over the deltoids, and next on the outer parts of the thighs, near the great trochanters. In spite of a good deal of iodide of potassium which he has taken, the eruption has persisted with but little change during the whole two years. The patches are not in the least raised, but are simply well-margined areas of light yellow-brown discoloration. They are furfuraceous in the very slightest degree. Although I have called them

nummular, they are not all round. Indeed, they are but few of them accurately so. Some of them are in the form of broadish streaks, but with very irregular outlines. On the tips of his elbows there are groups of reddish papules of a quite different character from the rest of the eruption, and which suggest the beginning of psoriasis. I told Mr. O. that I did not believe his rash had anything to do with syphilis, and that I viewed it rather as a very peculiar form of psoriasis. I advised him to take arsenic. There were no spots whatever on the trunk.

CHAPTER IX.

COMMENTARIES AND CASES ILLUSTRATING TREATMENT AND PROGNOSIS.

Commentary CXXXIII.

A case of very severe syphilis, in which the patient was profusely salivated in the early stage ; severe and persisting ulceration of the throat and tongue ; cure, after many relapses, by very large doses of iodide.

I WILL describe in some detail the case of a patient whose treatment gave me a great deal of trouble, and from the recapitulation of which I think we may learn something. It bears upon the treatment of a form of syphilis which is often very intractable. I refer to relapsing phagedænic ulceration in the mouth. The patient to whom I allude was originally brought to me by Mr. Daniel Wheeler, of Chelmsford, and for some time he remained under our joint care at his own home. He was, however, subsequently anxious to come into hospital, and we admitted him at the

London. The facts of his case are these: Mr. D. was a delicate-looking man, of fair complexion and spare form. He was, indeed, almost the counterpart of the subject of another case in which similar conditions were attended by like difficulties in the treatment. He had contracted a chancre in December, 1874, and in January following had a copious eruption, attended with such great debility that he was obliged to keep his bed. He was in bed some weeks, and sores formed in his throat, which he says "sloughed." I do not know what the treatment was at this date, but believe that he took mercury. In March he came to London, with his face covered with ulcerating rupia, and he now put himself under the care of a well-known homœopath. Mercury was given very freely, and under it his face ulcerated more deeply.

In July, for the first time, Mr. Wheeler saw him, and the cause of his first visit was a most profuse attack of hæmorrhage from a sloughing ulcer in the throat. Mr. Wheeler told me that three pounds of blood had been lost, and that Mr. D. was blanched, pulseless, and apparently dying. [This is not the first case in which I have known very dangerous hæmorrhage occur from syphilitic ulcers in the throat.] The bleeding having been arrested, Mr. Wheeler examined as to the other symptoms, and found that in addition to the ulcerations which covered the face and scalp there were sloughy ulcers in the throat and mouth, that all the teeth were loose, and that he was in a condition of profuse salivation. The iodide of potassium, in ten-grain doses, was now prescribed, and the dose was afterwards gradually increased up to half a drachm, with excellent results. Most of the skin sores healed, and he became able to swallow fairly. He now left Chelmsford for awhile, and took his medicine irregularly. In October he returned to Mr. Wheeler with his mouth much more sore, and breath

very foetid. The iodide in ten-grain doses, with twenty minims of the solution of bichloride, was prescribed, but it did not do any good, and the gums became more spongy. Sarsaparilla and nitric acid, and subsequently the iodide with gentian, were now given. Finally, as the mouth did not improve, he was sent to me. This was on Jan. 20, 1876. I found his mouth in a most deplorable condition: all the teeth loose; the gums ulcerated; several large, ragged ulcers in the palate, pharynx, etc.; with elevated edges and pultaceous discharge. I advised that we should attack the disease both locally and constitutionally, giving large doses of the iodide internally, and cauterising all ulcers freely with the acid nitrate. It seemed hopeless to think of mercury, for the teeth were ready to drop out, and our patient had the strongest conviction that it had always, and even in small doses, disagreed most definitely. It will be seen that the disease had resisted the iodide in tolerably full doses.

The treatment advised, although productive of benefit for a time, did not altogether succeed. Mr. D. was an excellent patient, on the whole, but he resented the frequent use of the caustic, on account of the pain it gave him. On April 6th, I find my notes stating that, "although the ulcers in the mouth are still considerable and unhealthy, they are much better than formerly." At this time there was a deep ulcer in the tongue itself. He was himself very thin and ill. The iodide had been pushed up to at least half-drachm doses. Thinking it possible that the iodide was causing the emaciation and debility, I suggested its omission, and that he should try a sea voyage. This not being practicable, he asked to be taken into the hospital. In the hospital we used the acid nitrate freely and frequently, and with excellent but imperfect results. The iodide was again pushed to very full

doses, and on several occasions it seemed that the sores would really heal. Relapses, however, still occurred, and I insisted on his leaving the ward and trying what sea air would do. I have almost invariably observed change to the sea cause an improvement in syphilitic sores at once. This was not the case, however, with Mr. D. He went to Margate, and stayed there some weeks, taking the iodide in moderate doses, and getting worse every day. A month later we again admitted him into the hospital, with very large and unhealthy sores. Several of his teeth now came away, and some portions of alveolus. On this second occasion we still used the acid caustic freely, and the iodide was pushed to yet larger doses. By gradual increments the dose reached at length one drachm, and this he took three or even four times a day. The result was that we discharged him early in August quite well. My notes on August 24, 1878, state: "Mr. D. has been thirteen weeks in the hospital, and his mouth is just healed. It had been very severely ulcerated, and he had also had a very large cellular node on the left leg. He has recovered under the iodide, in doses of one drachm four times a day. We began with smaller doses, and gradually increased them. We have again had the most definite proof that large doses were necessary. The drug has not disagreed, excepting that he has felt flabby and weak." He had, it is true, lost many teeth, and his cheek was contracted by a scar, so that he could not open his mouth freely, but the sores were all healed, and his gums were sound. It will be seen that I had had him under treatment more or less continuously for ten months, and that he had previously been taking specifics for at least a year. The necessity for such prolonged treatment is most unusual. Usually we expect to cure phagedænic sores in the mouth by one or two cauterisations, if liberally done, and if

supported by the iodide. It is very seldom that we have to push the latter beyond scruple or half-drachm doses. It is on account of the definite lesson which this case teaches, as to the efficacy of still larger doses when only partial results have been obtained from full ones, that I have chiefly thought the case worth note. The credit of the final cure must probably be divided between the iodide and the caustic. The latter was most freely and perseveringly applied by Mr. Buckland, my house-surgeon, and it always produced evident improvement. As I have already stated, a single free cauterisation is often sufficient to cure such sores, but here it was not; and over and over again sores which had almost healed, suddenly relapsed, without apparent cause. It was perfectly evident that sea air did no good, and our cure was at length attained in the hospital ward. Still, we will not hold sea air in contempt in future cases of like kind, for I have seen many cases in which remedies which had failed elsewhere triumphed at once when they were given in conjunction with its influence. Perhaps in this case, if we had been able to carry out the cauterisation treatment at the sea, and had pushed the iodide further, we might have succeeded sooner than we did. It is one of the advantages of sea air that it enables the patient to bear the depressing effect of large doses of iodide without hurt.

Had it not been for the loose teeth and sore gums, I should certainly have been inclined, in spite of the fact that the sores were deeply ulcerating, to have tried mercury again. It is certain that we must not regard ulceration, even when combined with cachexia and debility, as forbidding mercury, for sometimes it will agree exceedingly well in such cases, and will cure when the iodide fails.

If we seek the reason why Mr. D. suffered so much more than is usual, we shall, I think, have to

reply that he did so in virtue of an idiosyncrasy as regards both syphilis and mercury. From the very commencement of the case, the secondary symptoms were marked by unusual severity. He was so weak that he had to keep his bed, and when the eruption appeared on his face it immediately assumed the ulcerative or rupial form. It is probable that the mercury which he took at this stage disagreed and aggravated his symptoms. He ought to have had only the smallest doses. In administering mercury in the early stages of syphilis, we must be very careful, unless the patient is robust, to avoid even the slightest salivation. Dark-haired persons bear it best, and if we have to do with fair-haired, delicate persons such as was the subject of the present case, we must be additionally cautious.

When once troublesome sores have formed in the mouth after ptyalism, we are almost debarred the use of mercury. Although it may cure the syphilitic element, and might do good to the same sores if on the skin, yet, from its special influence in causing stomatitis, it may aggravate sores in this locality. A surgical friend of mine, whom I had under care some time ago for syphilis following a chancre on the finger, was a good illustration in proof of this. He had some slight symptoms still hanging about him, and amongst them white-edged ulcers on the velum and pillars of fauces. I was anxious to give him more mercury, but he assured me that it would at once make the sores in the throat worse. To convince me, he was kind enough to try twice, and on each occasion the sores inflamed and enlarged after a few doses. In this case we found, as in many others, the best results from local treatment by the acid nitrate of mercury only.

The treatment of syphilis in some of its phases is, however, full of intricacy, and we must be prepared sometimes to succeed with a remedy which, in the

majority of similar cases, would be almost certain to disagree.

Postscript.—I am obliged to add as a postscript to this case, that Mr. D., who was quite well locally when I last saw him, and in fair general health, subsequently had a relapse of symptoms and died. He had gone to Canada, and it was there that his relapse occurred. I can give no particulars beyond the fact that his mouth again became very sore.

Commentary CXXXIV.

On the inunction of mercury as practised at Aix la Chapelle.

The following note was written for me by a surgeon who had himself been a patient at Aix.

“Many patients resort to Aix la Chapelle in order to go through a course of mercurial inunction for no other reason than the (supposed) difficulty of carrying out the treatment at home. The following directions will suffice, if attended to, to prevent serious inconvenience during such a course.

“The patient should retire early to bed, and lie as long as possible in the morning.

“There should be a fire in the bedroom if the weather be cold.

“The ointment should be rubbed in at night. The patient should lie down naked on the bed or couch; a blanket, or rug, being spread beneath to prevent the soiling of bed.

“The ointment (which should be divided by the chemist into the prescribed quantities for nightly use) should be spread upon the chest and abdomen, and should be briskly rubbed in with naked hands over as large a surface of chest and abdomen as the hands can conveniently reach, for from fifteen to twenty-five minutes. A watch should be at hand to

note the time.* After the inunction a jersey and drawers must be put on and worn during the night to prevent the soiling of the clothes and bed ; but they need not be thick. Previously to putting them on, the hands may be washed. The ointment is easily removed by free use of soap and cold water ; easier still with hot water.

“In the morning the body can be washed with warm or tepid water with soap. The *night* underclothes can be worn for a few times or a week ; unsoiled clothes being worn during the day. The stain of the ointment is easily removed from garments by hot-water and soap. At Aix the rubbing is always done by a trained attendant, but this is not in the least necessary.”

Commentary CXXXV.

The virtues of iodoform.

The introduction of iodoform has supplied us with an agent of the greatest possible value in the treatment of syphilis. For its recommendation, especially in English practice, we were, I believe, chiefly indebted to Mr. Berkeley Hill. Its efficiency, in reference to all forms of suppurating ulcers due to venereal poison, is such that we may expect the non-infecting sore to become year by year more and more rare. It appears to be especially against such that it is most rapidly effective. Whether the sore be indurated or not, if there be ulceration and discharge, iodoform will almost invariably put an end to them. If there be induration, the sore remains hard in spite of it, but it becomes clean, and it heals. The great majority of what are called soft sores get quite well under its influence in a surprisingly short space of time. Probably it has no special power in reference to the syphilitic virus itself, for I do not know that it ever

* The ointment will *silver* any gold article touched by it.

shows any particular efficiency as regards the eruptions of the secondary period. When we come to the late tertiary period, and have to do with local lupoid disease of the skin, its power is again most remarkable. At the time of its introduction into use, I had under care in the London Hospital a man in whom serpiginous ulceration had attacked one groin and the upper part of the thigh. It was several years since his syphilis. He had been under my care more than six months, and nothing that we could do had effected a cure. The ulceration had often all but ceased to spread, and by far the larger part of the sore had soundly cicatrised; but always just as we thought that the victory was sure, a relapse would occur, and the ulcer would again begin to spread. We had applied nitric acid freely and repeatedly, had kept the man for a fortnight sitting in a hip bath, and had sent him for six weeks to the seaside. Iodides and mercurials internally had, of course, been freely given. Still the ulceration persisted. It was a mild form of superficial phagedæna. Under the use of iodoform in powder and ointment, this most troublesome sore, one of the most persisting that I had ever met with, was soundly healed in a fortnight, and it never afterwards relapsed.

About the same time (that is, very soon after the introduction of iodoform) a gentleman came under my care who had an extensive patch of syphilitic lupus on his neck. He had been troubled with it for years, and there was a huge area of scar, representing the part over which the disease had travelled. He had taken iodide of potassium in unknown quantities, and for many years continuously. I prescribed an iodoform ointment, and to his delight in a few weeks he was well. Since then I have used the drug in many cases of syphilitic lupus, that is, tertiary syphilitic serpiginous ulceration. If the patch is ulcerated, it cures quickly; but in parts where the skin is not broken, it

is much less powerful. In many cases it is desirable to begin by the use of the acid nitrate of mercury as a caustic, but if it be desired to avoid the pain of this, and the patient be willing to endure the smell of iodoform, a cure by its aid alone may in time be confidently expected. I do not usually employ it quite without the assistance of internal treatment, but I feel sure that in many cases it is more efficient than any internal medication that can possibly be devised. It is often a great point to save the patient from the necessity of taking the iodide or mercury, and this the free local use of iodoform will very often do. When it fails to cure, the reason usually is that the patient is unable, on account of its odour, to use it efficiently.

In all forms of phagedænic action, iodoform should first be tried. It is not only the least painful, but it is the most frequently curative of the various remedies for this form of inflammation.

I have known a few cases in which, without any explanation, a primary sore, of unhealthy aspect, refused to clean under iodoform. In one such case the sore kept its ragged edges and grey base with total absence of granulations, in spite of several weeks' use of iodoform, and a free cauterisation with the acid nitrate. The patient was a man of more than middle age, who had suffered from syphilis many years before, but had now contracted a new sore.

In the tertiary syphilitic ulcers of inherited syphilis, the use of iodoform is often very rapidly efficient.

Various substances have been recommended as useful in concealing the very disagreeable and betraying odour of this most useful drug. I have found nothing better than the so-called "oil of sanitas," a kind of turpentine. Half a drachm of this oil to an ounce of ointment containing half a drachm or a drachm of iodoform will fairly well conceal and modify the smell

of the latter, without interfering with its efficiency. What is called by the pharmacists "iodoform odoratum" is scented with coumarin. It is of pleasant odour at first, but the smell of the iodoform is apt to reveal itself when the more volatile scent has disappeared.

[Whilst these pages have been passing through the press, I have had my attention drawn by Mr. Martindale to the advantages of *iodol*. This preparation is odourless, and so far as my present experience has gone, it is as efficacious as iodoform in the case of suppurating syphilitic sores.]

Commentary CXXXVI.

Cure of syphilitic lupus by local treatment alone.

A very interesting and conclusive instance in proof of the value of local treatment in the cure of syphilitic lupus occurred in the instance of Mr. E. S. This gentleman had large scars on the head consequent on syphilitic ulcerations. He was in excellent health, and it was upwards of thirty years since his primary disease; he came to me with an irregular patch of dusky lupus on his right forehead, just where his hat touched him. I treated him for some time with both iodides and mercury. I do not think that he took them very regularly, for he was a surgeon himself, and it was very difficult to persuade him that his disease was syphilitic. Finally, as his patch did not get any better, I induced him to have it cauterised with the acid nitrate. It was not at the time in the least ulcerated. I applied the acid very freely, and the result was the formation of a large white scar. Five years later he came to me on account of carcinoma of the rectum. The scar of the lupus patch was very conspicuous, white and supple; and there had never been the slightest tendency to return of the disease at its edges.

This absence of tendency to return is, I think, almost conclusive in support of the syphilitic nature of the patch. I have very seldom seen simple lupus cured completely and permanently by a single cauterisation. Although Mr. S. thought that he had never had syphilis, his eldest child had inherited taint ; and his former ulcers had been cured by syphilitic remedies, his adviser at that time assuring him confidently that they were specific.

Commentary CXXXVII.

On the use and abuse of the iodides.

The iodide of potassium is one of those remedies of which it is curiously true that, in many persons, the dose makes little or no difference in its effects. A grain may produce iodism in some, whilst a drachm will not do it in others. I have known a patient, a medical man, on his own responsibility, take as much as an ounce and a half in the twenty-four hours for many days together, with no other ill result than that he felt, as he expressed it, "washed-out, and scarcely able to crawl about." On the other hand, I have, more than once, known patients definitely cured of tertiary syphilitic lesions by doses which began at a third of a grain, and never went higher than two grains. There is, perhaps, no drug in which the influence of idiosyncrasy comes more frequently or more prominently into play. To some patients even very small doses are poisonous, whilst a large majority can take indefinitely large ones with impunity. The cases of actual poisoning are rare, and until within late years they were never recognised. Tolerance being the ordinary rule, there has resulted, in reference to the iodide of potassium, a degree of carelessness as to the dose which is unheard of in connection with any other remedy. Many prescribers seem to think that it is scarcely possible to give too much, and that the only error consists

in shirking the dose. Although in some affections it is quite true that steady increase of dose, reaching ultimately to very large ones, is necessary to the cure, yet I feel sure that great harm is done by the indiscriminate manner in which the drug is employed ; and, further, that, for the most part, its full benefits might be obtained by much smaller quantities. The number of persons is very great in whom the iodide, although it may not produce either eruption or coryza, and although it may be unattended by any obvious ill results, yet acts as a very powerful depressor of tone. Those who have most carefully studied its effects in the treatment of aneurism tell us that its efficacy in that disease depends upon its power of lowering blood pressure, and that if pushed beyond a sufficient dose it increases the rate of the pulse, and does harm. On this subject Dr. G. W. Balfour, of Edinburgh, and others, have furnished some important facts. Dr. Balfour states that ten grains is usually a sufficient dose, and that it is not desirable to go beyond fifteen. Yet in syphilitic practice, especially in diseases of the nervous system, we frequently see the dose pushed to a scruple, half a drachm, or even much higher still. I cannot help suspecting that much injury is done to patients in this manner. It usually takes the form of enfeeblement of energy, mental dulness, and low spirits. Frequently, but not always, these pass away pretty completely when the drug is left off. I have known, however, not a few cases in which patients thought themselves to have been permanently damaged by prolonged use of the iodide, and in many I have suspected that such was the case, although the patient did not himself suggest it.

It is generally believed that the iodide of sodium is less depressing than the iodide of potassium. I am myself in the habit of combining the salts, and frequently give the iodide of ammonium also. The

addition of ammonia, either in the form of the carbonate or of sal volatile, ought, probably, to be always made when the iodides are prescribed, since it appears to increase the efficiency of the latter, and, at the same time, to diminish their injurious effects. I do not know of any drawback to this addition, and am in the habit of invariably employing it in my own practice. Of late years, however, I have got into the habit of using mercury much more, and the iodides far less, than I formerly did, and this not because I distrust the curative efficacy of the iodides, but because I have found that it is possible, by the use of very small doses of mercury, to cure the same affections, and to escape the depressing effects just referred to. My impression is that this change in practice is not at all limited to myself, and that it is destined to become general. The prejudice against mercury is fast disappearing, and both patients and surgeons are beginning to realise that the iodide, especially in the doses recommended of late, is not the harmless thing that it was thought. It is not at all uncommon for a patient to appeal to his prescriber, "Don't give me iodide of potassium if you can possibly help it. It depresses me so much, and makes me so miserable." These patients are not for the most part those in whom the special idiosyncrasy exists, but those who have painfully experienced its effects in considerable doses, and over long periods of time. Of the permanently curative powers of the iodide in suitable cases I have no mistrust, although I think it is to be admitted that the risk of a relapse is greater after an iodide cure than it is after one by mercury. The essential point, however, is, as I have insisted elsewhere, that, whichever drug be used, the local cure shall be complete before it is left off. If it be not so, and if ever so small a portion of inflamed tissue be left, as, for instance, in a syphilitic lupoid affection, the disease will certainly recur. I have

seen, however, many examples, both of syphilitic lupus on the skin, and of affections of the nervous system, which had been steadily aggressive as if serpiginous, in which an iodide cure, once complete, has proved permanent, the fact of the cure being confirmed by observation many years later.

Commentary CXXXVIII.

On cases of poisoning by the iodide of potassium.

The eruptions which occur in connection with iodide of potassium are very various in character, and some of them closely resemble in appearance those due to syphilis. Thus mistakes may very easily occur, and the remedy may be pushed, in the hope of curing symptoms of which it is itself the cause. I believe that I have known more than one case in which, where this mistake was made, a fatal result followed. For when the depression from the iodide has reached a certain point, and been continued for a certain time, the system recovers with difficulty, or not at all, when it is discontinued. We admitted a case of this kind into the London Hospital some years ago. The man was covered with large tuberculous swellings of the skin, which I diagnosed as probably due to iodide of potassium. On inquiry at an institution where he had been for a month under treatment, we found that he had been taking the iodide the whole time, and that he had had no eruption before he began it. Although we, of course, carefully avoided it, and gave tonics instead, yet the state of depression was such that he did not rally, but sank from debility about ten days after his admission.

It is a curious fact that these eruptions on the skin in many cases begin immediately after the first few doses ; now and then a single dose is quite sufficient to bring them out. They may occur at any age,

and are often very severe in the young. Dr. Stephen Mackenzie has recorded a case in which an infant, previously in tolerable health, died with an ecchymotic eruption after two or three doses, which in all comprised only a few grains of the salt.

An acne eruption, occurring on the face first, and subsequently on the body, is by far the commonest of the iodide rashes, but it is not the only one. The eruption may be vesicular, or bullous, or furunculoid ; or, lastly, it may take the form of large flat-topped tubers, such as we see more frequently after use of the bromide of potassium. Speaking generally, I know of no rules by which an eruption due to iodide of potassium can be distinguished from one caused by the bromide. The action of the two salts seems to be in this matter very similar, and in both cases the use of arsenic appears to be tolerably efficient in preventing the eruption.

Commentary CXXXIX.

Case in which various symptoms in connection with syphilis recurred during many years; hemiopia with giddiness; dry pleurisy; relapse of the original chancre twelve years later.

The case which I have tabulated in the following statement is one of considerable interest. The patient, who was a rather delicate man, had an idiosyncrasy against mercury, and could never bear it for long. He was also very unwilling to take it. In the first instance it was only given for a week or two, and though subsequently it was frequently prescribed, it was never taken for long. The iodide of potassium he could bear better, but that also depressed him. I have little doubt that the whole of his ailments during the series of years over which the narrative extends were really due to syphilis.

He consulted many medical men, and different opinions were given him. But we always had to fall back on specifics for the cure. It will be seen that he had chronic orchitis, with hydrocele, first of one testis and then of the other. Attacks of pain in the head occurred with giddiness and hemiopia, and these were followed by a long persisting and relapsing attack of dry pleurisy. Although his cure was so protracted, yet we may note that in the end it appears to be all but complete. With the exception of trivial symptoms very recently, he has now enjoyed good health for five or six years. The case is not without its importance in reference to the recognition of these various ailments as being due to syphilis, and it also bears in an interesting way on the question of prognosis.

- 1871.—Contracted syphilis on February 7th; a vaccination chancre. Treatment began April 5th. Took mercury irregularly, had a very slight rash and sore throat.
- 1872.—Liable to little pustules in the eyebrows; and still occasionally taking mercury.
- 1873.—An eruption of herpes on trunk and left arm. No definite syphilitic symptoms. In April, hydrocele, and some pain in testicle. Taking iodides.
- 1874.—Enlargement of epididymis. Mercury and slight pyalism. Still taking specifics occasionally for induration of right testicle. The left testicle now became enlarged and painful. In June, pains in head. Vertical hemiopia on right side. Loss of memory for names of things. The iodide again given. In November, pains in head and giddiness. Numbness of right limbs.
- 1875.—In January, consulted Dr. Wilks. Several attacks of numbness of lips, tongue, and right hand. Again cured by iodide of potassium. Left testicle still large and painful.
- 1876.—In May, a persisting attack of pain in chest. Saw Dr. Theodore Williams. Chronic pleurisy; probably syphilitic. Saw also Dr. Gee and Dr. Sutton.

- 1877.—Rough crepitus continued. Under iodide treatment the testis and the pleurisy got quite well for a time.
- 1878.—He again had the old pleuritic friction sound, with pain in the chest. He was again cured by mercury and iodides.
- 1879.—Good health, not needing treatment.
- 1880.—Good health, not requiring treatment.
- 1881.—Good health, not needing treatment.
- 1882.—Good health, not needing treatment.
- 1883.—Not needing treatment.
- 1884.—Not needing treatment.
- 1885.—For a while he had again vertical hemiopia, being blind on the right side, but soon recovered under treatment.
- 1886.—One of the vaccination scars has recently been red and ulcerated. Under mercurial ointment and iodide internally, the ulcer healed. He is now in good general health, and has been so for some years.

The dry pleurisy which is mentioned in the preceding notes was chiefly characterised by a rough friction sound over an area as large as the outspread hand. It was present for months together, and was attended by some pain, but did not disable the patient. It was on the right side below the nipple; there were no other lung symptoms. I have met with this form of persisting pleurisy several times in syphilitic patients.

Commentary CXL.

The antidotal efficacy of mercury.

Respecting the results of treatment in general, I believe I may with truth assert that I have never, in any single case of late years, seen a severe eruption on the skin develop itself after a mercurial course of the kind recommended had been commenced. It is a fact, then, that the remedy manifests antidotal power in that it can not only remove, but anticipate and prevent, by far the most conspicuous manifestations of the disease. I cannot make so strong an assertion respecting some other of the symptoms of the later

part of the secondary stage. I have seen iritis, and neuro-retinitis, occur occasionally, and even with some severity, in cases which had been well treated; and, in very exceptional instances, I have witnessed disease of the arteries of the brain. In a large majority of cases, however, a six months' course of small doses of mercury appears to be adequate to the complete and permanent cure of the disease. No relapses occur, and the patient remains afterwards in excellent health.

We may admit that it is a question which must be left open for future accumulation of evidence, whether the antidotal repression of the secondary stage is influential in preventing the development, after a long interval, of tertiary symptoms. That it does not do so always, is abundantly proved. I cannot but believe, however, that it does exercise a very powerful influence in that direction, and that the diminishing frequency and severity of tertiary disease in modern times is largely due to better regulated treatment. It is often matter of remark that those who do suffer seriously after long intervals, are those in whom the early symptoms were exceptionally slight, and treatment in consequence not persevered with, or almost wholly omitted.

In urging the antidotal efficacy of mercury as a fact in the natural history of syphilis, I have not in the least wished to claim superiority for the special mode of administration which I have mentioned. I do not doubt in the least that the advocates of other methods, such as those by inunction or by the vapour bath, can produce just as good results. The essential point seems to be that the treatment should be very long continued, or, if not, that short courses should be repeated without waiting for symptoms. The method which I have advocated is simply one of the most convenient.

Commentary CXLI.

On the tendency of syphilis to develop in successive outbreaks.

It is a question of some interest whether syphilis has any tendency to develop itself by, so to speak, a series of successive waves. It is certain that we do observe periods of very sudden and acute outbreak, and that these sometimes follow after others of complete quiescence. Such facts are especially noted during the development of the secondary phenomena ; but it happens, every now and then, at much later periods, that in a patient, who has been well for years, suddenly new symptoms occur, not only in one, but in several different parts of the body at once. This is, however, infinitely more rare than are the sudden and acute recurrences of symptoms which we often witness during the first year of the disease. The fallacy which besets our observations on this point is the one which meets us at all turns in our attempts to study the natural history of syphilis ; it is this, that the phenomena may be connected with the intermittent employment of antidotal treatment. The worst cases of rupia which we see, occur usually under these conditions, the patient having been cured of a first and much milder outbreak of eruption, and then, after an interval of some months, becoming the subject of a more severe one.

Commentary CXLII.

Case in which mercury always cured for a time, but did not prevent speedy relapses.

The following case may be quoted as an illustration of the difficulty which we sometimes encounter in permanently overcoming the symptoms of syphilis

by mercury. It was not one of those in which the patient shows a resistance to the influence of the drug, nor, indeed, one in which the symptoms resisted it. Over and over again a complete disappearance of symptoms was secured, but with the same disappointing result that when the remedy was suspended the malady came back. As usual, however, the relapses became more and more mild each time, and it seems probable that a victory will in the end be obtained. The subject of the case is an Italian gentleman, of dark complexion named G. He came to me in March, 1885, suffering from a lupoid psoriasis, which was scattered with partial symmetry over the trunk and limbs. He had also large peeling patches in the palms. On the backs of his hands, fronts of knees, and tips of elbows there were patches which were of the psoriasis type, whilst those in his palms showed no accumulation of epidermis, but simply peeling. There was no room for doubt that the whole of the eruption was of a syphilitic nature, for it had been present with modifications ever since the primary disease two years before. During the whole of that time, with some short intermissions, he had been taking mercury or rubbing it in, and on several occasions his mouth had been made sore. He had been throughout under the treatment of a surgical friend. As so much disappointment had resulted hitherto, I thought it a fair case to recommend for the Aix treatment, and accordingly gave him an introduction to a surgeon there. I did not see him again for a year. In April, 1885, he came back to me saying that he had been twice to Aix, and that his hands were as bad as ever. During the year he had made nearly two hundred rubbings, and had been at least three times profusely salivated. He said that his mouth was very readily made sore; and that whenever he was under the full influence of mercury his symptoms disappeared, but

that they returned again directly he left it off. He had rubbed in not only at Aix, but also while at home. I found that his complaint as to being no better was not by any means to be taken literally. The patches in the palms of his hands were still troublesome, but he was quite rid of those which had been present on his body. On the hands, too, the disease was much less severe than it had been. There were three or four patches in the palm of the right hand, but none in that of the left. His thumb-nail on the left hand was, however, thickened, and inflamed at its edge.

As regards the Aix treatment in general, I may here say that I have seen a great many cases in which the symptoms of syphilis have relapsed after a temporary cure by inunction as practised there. I do not think that as regards permanency of cure the inunction method presents any special advantages over others, nor that inunction at Aix is any better than the same plan carried out at the patient's home. It must be admitted, however, that for a certain class of patients who cannot submit to systematic treatment at home, there are great advantages in a visit to Aix.

Commentary CXLIII.

On the power of mercury in preventing secondary eruptions, and on relapses after its disuse.

It is very seldom indeed that there is any difficulty in keeping the skin perfectly clear during the secondary stage of syphilis. In the tonsils, and sometimes in other parts of the lining membrane of the mouth, sores will occasionally form; and, although these are in a general way amenable to an increase of the dose, and to the local use of the drug (as a black-wash gargle), it is to be admitted that there do occur occasionally cases in which it is difficult

to be sure that the supposed remedy does not aggravate the disease. In a large majority of cases, however, in which, beginning at an early period, the patient is put through a six months' course, during the last four of this period he is absolutely without symptoms and apparently in excellent health. If, however, at the end of the six months the remedy be stopped, in many cases a very remarkable proof of its antidotal efficacy will occur. We shall find that the remedy, and the remedy alone, had held the poison in inactivity. For, in spite of the long period of absolute quiescence, an outbreak of symptoms will occur within a few weeks of its suspension. This outbreak is usually a very mild one, but is, nevertheless, very definite, and it is general. It usually takes the form of an erythematous or lichenoid eruption, occurring chiefly on the trunk, and is not often attended by sore throat or other symptoms. Although it may now and then be papular, I have never seen it approach in severity the eruptions which we often see in cases which have not been treated. In more than one case, I have known this eruption, which comes after the suspension of mercury, mistaken for scarletina. It is always, I believe, very easily amenable to mercury, disappearing in the course of a few days, or at most a week or two, and seldom recurring. There is, however, another very peculiar eruption which sometimes persists for a long time, and recurs over and over again. I have been in the habit of speaking of this as the "after-bath eruption." It is a very trivial affair, and consists chiefly in the appearance of a number of faintly marked erythematous rings, which are seen only on sudden exposure of the body to cold, as on first getting out of bed, and especially after the use of the morning bath. Nine out of ten patients notice them only under the latter condition, and they generally fade away almost completely after a few

hours. These rings are seen most frequently on the arms, but sometimes on the trunk and thighs. They are unquestionably syphilitic, and the liability to them usually ceases on recurrence to mercurial treatment. They are seldom or never attended by other manifestations of the disease.

Commentary CXLIV.

Remarkable persistence of syphilis in spite of very efficient treatment ; an attack of symmetrical deafness in the third year, and one of paraplegia in the tenth ; birth of a syphilitic child seven years after the disease.

A gentleman of distinguished position in one of the northern counties gave me the following history of his syphilitic illness. He consulted me first in July, 1876, some time after his paraplegia. His chancre and eruption had occurred in 1865, when he was twenty-nine. He was treated in London by an able specialist, and used calomel vapour baths, with intervals, for three years. In 1868 he had an attack of almost complete deafness, with noises in the ears, but no pain. It lasted nearly three months, but under specific treatment got finally quite well. In the next year, with the permission of his advisers, he married. A still-born but fine child was produced a year later, and four years afterwards a child was born which lived, but which had to take mercury for specific symptoms. In 1873 he had, during hot weather, an attack of diplopia, which again was cured by specifics. In 1874 there was an ulcer on one leg of a suspicious character, and in 1875 a second attack of diplopia, which lasted longer than the first. It was whilst actually under treatment for this that his paraplegia occurred. Before proceeding to describe the symptoms and results of his myelitis, let us note that the taint had clung to him in a very

remarkable manner. He had had the most efficient and prolonged treatment by the calomel bath, yet, although his symptoms had always yielded well at the time, they had repeatedly recurred. Most remarkable of all was the seeming fact that his wife bore him a tainted child seven years after his syphilis, and in spite of this very prolonged medication. His attack of paraplegia developed rather suddenly. He had been feeling out of sorts some days, when one night, after having had intercourse with his wife, he became alarmingly restless, and had severe pain between his shoulders. His surgeon was at once sent for, but nothing definite could then be made out. In the morning all his limbs were weak, and he could not pass water. Subsequently the lower extremities became quite paralysed, so that he could not lift them from the bed, and he had incontinence of both urine and fæces. His upper extremities, although at first weak, were never paralysed, and in the course of a month he could use his hand for writing. He was in bed five or six weeks, and then gradually regained the power of walking.

When I saw Mr. R., about ten months after his illness, he could walk fairly, but was unsteady on his feet, and "could not run a step to save his life." He thought that he could manage four or five miles if he walked slowly. From the date of the illness all sexual power had left him. His knee jump was rather excessive and the pupils acted well. There can, probably, be little doubt that this was an attack of acute myelitis of the dorsal cord. I have thought it worth quoting as an instance of the influence of syphilis in leaving the nerve centres prone to disease later on. The exciting cause of the attack was probably the act of sexual intercourse, and the entire extinction of this function, probably, marks the part of the cord on which the stress of the disease fell and from which it started.

Yet, remembering the previous attacks of diplopia, and noting the close similarity of the attack, and the mode of recovery, to those which we have observed in other syphilitic patients, we may still hold that the specific taint was of much importance in causing liability. The influence of syphilis upon the tissues in general is to make them more vulnerable.

Commentary CXLV.

On the persistence of tertiary syphilis in one region or one tissue only.

The manner in which tertiary syphilis sometimes fastens itself on one particular tissue or part, and shows not the slightest tendency to attack others, is very remarkable. Sometimes it is the throat and mouth, sometimes the larynx, at others the nervous system, and at others the skin. In some cases the lesions are multiple, but all in the same structure; whilst often the lesion is single, but with persistent tendency to relapse. When multiple it is seldom that exact symmetry is observed, and the more recent developments are probably produced by infection from the first (as is the case in common (*i.e.* non-specific) lupus). These cases very strongly favour the opinion that tertiary manifestations are often local only. I could not mention a better example of what has just been said than the following, but instances are abundant.

A man, aged 39, was sent to me by Dr. Gervis for a troublesome skin disease. He had enormous patches of serpiginous lupus on his thighs and abdomen, with crusts at their edges and thin scars in the middle. There could be no mistake as to their nature. He had had them for thirteen years. At times, under treatment, he had got nearly well, but never quite so, and it seemed probable that he had never been systematically treated for syphilis. He had been

married fourteen years, and the lupus made its first appearance on one thigh two years after his marriage. Seven children had been born, and of these six, including the eldest, were living, and all had been wholly free from symptoms. Thus we have interesting proof that a man who himself suffers from tertiary symptoms may yet transmit nothing. There was a history of a chancre (but no secondaries that he remembered) twenty years ago, that is six before his marriage.

Commentary CXLVI.

A case illustrating the long latency of syphilis and the development of later tertiary symptoms ; recurring irritation in the chancre.

The Rev. T. R., aged fifty-two, and now a well-known clergyman, was, when eighteen years of age, seduced, and had a sore and a bubo. For these he was salivated. He was only a few weeks under treatment. He does not recollect any secondaries, nor had he any reminders until middle life. He married at thirty-two, and has now six healthy children. At the age of forty he consulted a surgeon at Brighton for an eruption on his leg, who at once said that it was syphilitic, and cured it by specifics. Two years later the site of the original chancre became irritable again. After being an open sore for more than a month, it healed under treatment. At this date he took much iodide. His youngest child was born just before the sore relapsed. She has remained throughout in excellent health. For four or five years after this he was quite well, and then he had an ulcer on the left leg. Finally, he was sent to me for a large periphlebitic gumma in the left calf. He was at this date apparently in excellent health. It will be observed that all his tertiary phenomena were single and non-symmetrical. In each instance he was cured

by specifics. Had the patient's social circumstances been different, it might have been suspected that the recurred chancre was rather a new infection. It will be observed, however, that some tertiary symptoms had preceded it, and that it was not followed by any secondary ones. I have also in two cases seen a similar relapse in chancres which had followed vaccination, and when consequently second contagion was impossible. (*See commentary cxi.*)

Commentary CXLVII.

A case illustrating treatment.

The following case occurred before the introduction of iodoform, and the note was made at the time : " I have just succeeded, after a long period of disappointment, in getting a severe case of tertiary syphilitic ulceration of the face well, and it is worth while to record the details of the treatment. The patient is a married lady in delicate health, who came to me six months ago with extensive serpiginous ulceration of the nose and cheeks. Her disease had been recognised, and she had already taken much iodide of potassium, and had also just returned, no better, from the seaside. She was thin and phthisical. I prescribed iodide and tonics, removed all crusts, and freely applied the acid nitrate as a caustic to the ulcers. After this I saw her once a month, and each time used the caustic. The improvement was at first but very slow. In April she came to me quite well, all sores healed, and her health much improved. The benefit had occurred rapidly since her last visit. The prescription then given was : Reduced iron, three grains ; calomel, a third of grain ; extract of camomile two grains, in pill three times a day, with fifteen grains of iodide of potassium and twenty minims of sal volatile in mixture. The sores having been cauterised were dressed with black-wash

on lint. I do not know to which element to ascribe the case, or whether simply to perseverance with all. I had been throughout urging her to go to the sea again, and she had at length done so, but she assured me the improvement had set in before she went. Perhaps the substitution of black wash for mercurial ointments was important, and possibly the iron was so also. I incline, however, to give the first place to the repeated cauterisations.

Commentary CXLVIII.

Permanence of cure in two cases of syphilis (a mother and son : the subjects of acquired and inherited disease).

Late one evening my servant announced that a man, whom he described as shabbily dressed, wished to speak to me. He would evidently have been pleased had I obeyed my first inclination of declining to see an inopportune and unpromising visitor. I did not do so, and was rewarded, as on many other like occasions, by obtaining a valuable clinical fact. The man had brought with him his photograph (more than twenty years old), which I had had taken in the early days of recognition of the syphilitic physiognomy. He was then a boy of nine, and now a married man of thirty-two. His features were very much deformed, and his teeth typical. I had formerly treated him for a severe attack of double keratitis, and his mother, at the same time, for a tertiary ulcer on her leg. I had not seen either of them for more than twenty years. He told me that he had enjoyed excellent health ever since, and that he worked constantly in a paper-staining business. A fear that his sight was failing him had now made him wish to see me again. I expected that it would prove to be an example of progressive choroido retinitis, but, on

examination, it proved to be only aggravated myopia. Thus it appeared that all kind of activity in his taint had ceased with the attack of keratitis at the age of nine. I may add, in passing, that he told me that his mother also had remained perfectly well ever since her treatment. He was himself married, but had no children.

I have had many opportunities for similar observations of the immunity in later life of those who suffered severely from inherited syphilis up to the age of puberty. In nearly all cases the attack of keratitis is the last of the phenomena of the disease.

Commentary CXLIX.

On the influence of treatment as proving that in the tertiary stage the phenomena of syphilis are often only local.

The doctrine that syphilis in its tertiary stages is often and to a large extent local only, receives much support from the cases which we so often see, in which it clings pertinaciously to one organ or part. In the tongue this is very common. The palm of the hand and the larynx also often afford us examples of it. The disease will continue year after year to relapse in that one part without showing any tendency to attack others. An attack of cold will cause a relapse of the laryngitis, or a game at cricket bring back the patches on the palm. In many cases, however (in a large majority, I think), the tendency to relapse is due to imperfection in the cure. Something has been left behind, and is the starting-point for fresh inflammation. We see many cases in which, when a complete cure of a long-troublesome local malady has been effected, it is permanent. This was very remarkably the case in a gentleman whom I had treated for a very long time for palmar psoriasis. He was insusceptible to mercury,

and had taken very large quantities. He was in excellent health, and the only symptom which he had was a large peeling patch in one palm. It had often got nearly well, but never quite. Finally, under the use of an iodoform ointment, it wholly disappeared. The palm has remained supple and soft, without the slightest indication of relapse, ever since.

In the case of the larynx it is sometimes very difficult to bring about a complete cure, and relapses occur year after year. These are the cases which end in gradual stenosis, and finally require tracheotomy. They happen I think chiefly to those who have susceptible throats, and who are liable to catarrhal inflammations. In some cases the relapses appear to be of an herpetic nature. Yet even in this position, if once a cure is obtained it is usually permanent.

Commentary CL.

A case illustrating the prevention of secondary symptoms by mercury, and a mild outbreak two months after its suspension.

I have repeatedly in former pages drawn attention to the fact that after the most successful prevention of all secondary symptoms by small doses of mercury given over a long period, a mild outbreak may occur soon after the specific is left off. The following case illustrates this important practical statement, and proves that a rash and sore throat, in all respects exactly like those of the early secondary stage, may occur under such circumstances, for the first time, ten months after the chancre.

Mr. M. was first seen by me on February 1st. He then had a hard sore in the frænum. I ordered the grey powder pill, and iodoform ointment. On April 21st all induration had gone, and the site of the sore would scarcely be distinguished. He had

taken regularly two grains of grey powder four times a day, and he continued this until September 20th. During this period he was very carefully watched, and he never had any trace of the secondary phenomena. He was in good health all the time. He lived as usual, and smoked freely.

At the end of September I allowed him to leave off the pills. It will be seen that the diagnosis of syphilis rested solely on the induration which was present in the sore at the date of his first visit. On November 15th he came to me complaining that his throat was sore, and on stripping him I found his trunk covered sparingly by roseolous eruption; on his tonsils there were symmetrical superficial sores. Both rash and sore throat were very mild, but they were quite characteristic, and they were precisely those of the early secondary stage. Mercury was again given. He said that he felt quite well. It should be mentioned that he had been smoking largely, and taking severe exercise at a gymnasium. Thus local influences had very possibly served as exciting causes.

Commentary CLI.

On the influence of mercury on the blood.

By several investigators most praiseworthy attempts have been made to determine with exactitude the effects of mercury upon the blood and tissues, and to ascertain the manner and degree of rapidity of its elimination. The number of the red blood corpuscles has been carefully counted before and after its use. Making allowance for discrepancies consequent on the difficulty of the investigation, we may say that these inquiries, in a general way, bear out the conclusions previously arrived at by clinical observers. "A fattening course of mercury," is an expression which has been in use since the days of Abernethy, and the conclusion

now arrived at by experiment is, that not only in the syphilitic but in the healthy, not only in man but in the lower animals, mercury, if given in small enough doses, may be made to assist the formation of fat and muscle. It also tends to increase the number of red corpuscles. Everything depends on dose, and upon the patient's idiosyncrasy. Whatever the idiosyncrasy, however, if the dose be reduced sufficiently, the drug may be made to agree.

That mercury is very quickly eliminated has been abundantly proved. It appears first in the urine, but may be detected also in all other secretions. It has been discovered by analysis in most of the tissues of the body, but in all probability it does not remain long. Hence the necessity for long continuance of its employment. The proper reply to the question so frequently put by patients at the conclusion of a successful course, "Will you not now give me something to take the mercury out of the system?" is, "It is much to be wished that it would stay in."

Commentary CLII.

On different plans of treatment proposed as substitutes for the use of mercury.

I have expressed so strong an opinion in favour of the use of mercury as a specific in all stages of syphilis, and in all constitutions and states of health, that it seems scarcely worth while to discuss the various methods which have, at one time or another, found advocates as its rivals. It may, however, be admitted, that in a general way whatever favours tissue change may help in the cure of syphilis. Thus various drugs which act on the skin, kidneys, or bowels, may sometimes prove beneficial, although usually very unsatisfactory if mercury be wholly omitted. The repute which many vaunted preparations have obtained has

depended upon the fact that after all they did contain some small portion either of mercury or iodide. This has especially been the case with the various preparations of sarsaparilla and with what is known as Zittmann's decoction. Occasionally good is seemingly done by such means as the sweating or Turkish bath, and by insisting upon excessive exercise and a very meagre diet. A plan, at present somewhat fashionable on the Continent, consists in making the patient walk much, eat very little, and drink water very freely. Obviously such a plan favours the change of tissue.

Commentary CLIII.

On the use of specifics for purposes of diagnosis.

Those who think that the results of treatment by specifics may be relied upon as establishing the diagnosis may easily make great mistakes. Syphilitic affections often resist treatment for a long time, and, on the other hand, mercury and iodides often effect the greatest possible good in cases which are not syphilitic. The iodide is a remedy for all forms of chronic inflammation attended by tissue infiltration and thickening, and especially where bones or fibrous tissues are concerned. It came into use against periostitis, first for the splints of horses, and was only subsequently to its proved efficacy in these cases employed against the nodes of syphilis. The disappearance of bone thickening under its use is very far from implying that the disease cured was of syphilitic causation. So also with mercury; it is a remedy, perhaps *the* remedy, for all forms of inflammation whether chronic or acute. Perhaps some of the chief advantages which the public will reap from the recent revival of confidence in it for syphilis, will be in cases in which it is given under a mistaken diagnosis. In the present age of pusillanimous therapeutics it requires as much courage, in any

case not diagnosed as syphilitic to advise that the gums should be touched, as it does to suggest venesection or the use of antimony. Diagnose syphilis, however, and whether right or wrong you may give it freely.

Commentary CLIV.

The importance of dose.

In the employment of specifics in the treatment of syphilis everything may be said to depend on dose. The statement so often made respecting patients, that they cannot bear the smallest quantity of mercury or iodide, may always be set down as a mistake. Reduce the dose sufficiently and the drug will be borne, and when it is borne it will cure. It is not quantity of the drug which is needed, but its effect on the organism; and if the specific effect is gained by a minute quantity it is not only not needful but very bad practice to attempt to increase it. I have never yet met with a patient who could not take either iodide of potassium or mercury, if only the dose was sufficiently reduced. The chief difficulties in treatment occur with those who are insusceptible, not in those who respond easily. I have repeatedly reduced the iodide of potassium and grey powder, respectively, to one-sixth of a grain for a dose, and then found them to agree well and to manifest specific influence.

Commentary CLV.

On the efficacy of early treatment in preventing tertiary symptoms.

Amongst the most important of the many problems which yet remain to be solved by the industry of future investigators, is the influence of treatment in the early periods upon the liability to tertiary phenomena. It is a question of extreme difficulty, being

made so chiefly by the great departures from uniformity which syphilis presents. Tertiary symptoms are fortunately exceptional, whatever may have been the plan of treatment pursued, or even if all treatment have been omitted, and we can never feel certain that they have been prevented by any special measures which may have been adopted. Nothing less than a most painstaking collection of cases, each one of them extending over a period of twenty years at least, can settle the question. When we remember that in very few indeed is the same plan of treatment pursued throughout, it will be easily seen that statistical evidence of the kind desired is not likely to be soon obtained. We must as yet, and for long, be content with general impressions.

There is no doubt whatever that the symptoms of the secondary stage may disappear under the most various plans of treatment, or without any, and that the patient may have a long period of absolute immunity, with at the same time a liability to suffer later.

Commentary CLVI.

On the distinctions of stage.

Having admitted that all forms of visceral disease may occur in the secondary stage, and that every tissue in the body may be affected in it, there can be nothing surprising if, to many, it should seem that we abandon all distinction between the secondary and the tertiary stages. But it is certainly not so. We abandon, it is true, arbitrary rules of classification, but it is with the result of obtaining a clearer insight as regards the data on which it should be based. All will admit that for a time (as to the length of which, it is true, there may be some dispute) a syphilitic inoculation is a local matter; then follows a period far longer, during which the poison is free in the blood,

and may, through the blood, infect all the tissues. We do not know how long this condition lasts, but we know that it is terminable, and that there will, sooner or later, ensue a state of the body in which the fluids are no longer infectious, and there exists no longer any tendency to generalised outbreaks. In this latter condition, however, the patient is by no means wholly free from the risk of morbid phenomena in connection with his taint. As a rule, even the tyro can, however, easily distinguish such phenomena from those of the early stage. If he sees a general eruption covering the whole body, or ulcers in both tonsils, or double iritis, he does not listen to the patient's assurance that it is ten years since his syphilis, but feels perfectly confident that there has been some recent infection. Thus, for practical purposes, and in the great majority of cases, the distinction of stages is definite and easily recognised. Whatever pertains to the original and absolutely local infection, belongs to the primary; whatever to the period of blood contamination, and which is consequently generalised and symmetrical, belongs to the secondary stage; and whatever follows after the last has ceased, is tertiary. Thus we see that in theory syphilis is first local, then generalised or constitutional, then local again; or, perhaps, it would be more correct to say that it is first a local disease of solids, then a universal disease of the blood and solids, and lastly a disease of the solids only. The practical difficulty is to determine at what precise period it ceases to be a blood disease, or, if we may venture so far to rest on theory, at what period does the specific and particulate virus of syphilis (the microbe which originates all its early phenomena) cease to exist in the organism? When that microbe finally dies out, then the disease must cease to be infectious, and from that period tertiary manifestations alone are possible. Such manifestations are

simply chronic inflammations in structures which have been damaged by syphilis, and have probably nothing to do with the then existing state of the blood. They are local, they spread locally, and they are curable by local means. Who would dream of attempting to cure secondary eruptions by local measures? We know that if one eruption disappears, another will come, and we have abundant proof that the whole body is simultaneously liable to suffer. It is wholly different in the tertiary stage, in which local cures are often, or, indeed, usually, lasting.

Commentary CLVII.

On "mercurial teeth" as being possibly indicative of proneness to pytalism.

I do not know whether the existence of mercurial teeth ought to lead us to be cautious in prescribing mercury. It is possible that they may in some cases indicate peculiar susceptibility to the drug. The following case gives a hint in that direction. A young man who was under the care of an able surgeon in my neighbourhood, called on me because he was not getting fast well of a syphilitic rash. His chancre was still very hard, and he was profusely covered with a papular eruption. Being informed that he was already taking mercury, I advised its continuance. Five days later he came again in a state of most profuse salivation; his gums, lips, and cheeks were much swollen, and the flow of saliva was very profuse. His gums at one part were gangrenous. I now noticed that his teeth showed in a very marked degree the peculiarities which I have attributed to stomatitis in infancy. As this form of stomatitis is usually due to mercury given in the form of teething powders, the presence of such teeth may perhaps imply unusual susceptibility to the drug.*

* See Illustrations of Clinical Surgery, vol. i., p. 54.

The effect of this full physiological influence of mercury upon the syphilis was most remarkable, all traces of the chancre and the eruption disappeared immediately. As soon as the ptyalism was cured he appeared perfectly well. All specific treatment had of course been suspended. For some months he remained in perfect health and wholly free from symptoms. Subsequently however, a slight relapse occurred, and specifics in a milder form became necessary.

Commentary CLVIII.

On resistance to mercury and on the production of ptyalism.

That mercury will not always prevent or arrest the development of syphilitic symptoms is well known. We meet occasionally with patients who appear to resist the influence of the drug, and who bear large doses without obvious effect either on their health or on the morbid phenomena. In these sometimes the effect of salivation is very remarkable, the conditions which had previously remained unaltered vanishing at once. It is, however, by no means only in those who bear large doses without effect that we remark the persistence or even the re-development of syphilitic lesions. Sometimes during actual ptyalism a fresh outbreak may occur. This is, I think, especially prone to happen in the case of iritis. I have several times seen the second eye attacked when the patient was under full mercurial influence for the first. There would even appear to be some plausibility for the suggestion that in some persons the state of ptyalism so far from being helpful, rather hinders the antidotal efficacy of the remedy. As I have already remarked, some of the most severe attacks which I have ever witnessed have occurred after short courses of mercury which have been suspended on account of ptyalism.

PLATE VI.

TEETH OF INHERITED SYPHILIS.

- Fig. 1 shows an upper central incisor of the permanent set which has just come through the gum. It is a large tooth, but narrows towards its edge (screw-driver type). Almost the whole of its edge is occupied by a shallow, crescentic notch, in the middle of which are three or four small sharp spines. (Compare with Fig. 5.) These spines would in a short time break away, and leave the notch much in the condition seen in Fig. 2.
- Fig. 2.—A pair of upper central incisors of the permanent set, both of which show a characteristic central notch. The teeth are narrow at their edges and slope towards each other. They are short and discoloured. (Compare with Fig. 5, in which the teeth slope outwards.)
- Fig. 3.—A pair of upper central incisors of the permanent set, deeply notched and much like those seen in Fig. 2, excepting that they do not slope inwards. It will be seen that the lateral incisors show no defect of form, nor does the left canine. The right canine has a deep notch, with an excrescence in its centre. Where the dentine is exposed in the middle of the notches it has become discoloured.
- Fig. 4.—A pair of upper central incisors of the permanent set, which are deeply and characteristically notched. The teeth are not shortened as is usual, but are smaller than natural, leaving a considerable space between them.
- Fig. 5.—The upper central incisors have been only recently cut, and the central notch, which is well marked-out, has not yet been cleared by the breaking away of the thin and unprotected dentine. The teeth are both short and narrow, and unlike what is seen in Fig. 2, they diverge, leaving a wide interspace. The four lower incisors present a series of small peg-like excrescences, consequent upon loss of enamel and exposure of dentine. The dequodation begins on the same level on all these teeth.

Fig. 1.

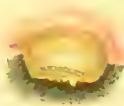


Fig. 2.



Fig. 3.

Fig. 4.

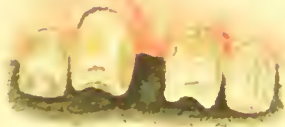


Fig. 5.

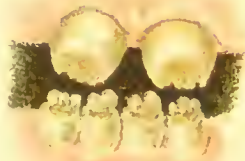


PLATE VI.

SYPHILITIC TEETH.

We have here, I think, the strongest reasons for preferring the plan by small doses long continued and without any approach to ptyalism. Under this plan I have never witnessed any severe outbreak after the remedy had once had a fair beginning. The case records of Mr. Judd afford abundant illustrations of what has just been said. He aimed at inducing ptyalism usually by inunction within ten days or a fortnight. In his hands relapses appear to have been very common, so much so that he came to the opinion that if mercury be given early it brings out and aggravates the secondary symptoms.

The iodide is seldom useful in the early stages of syphilis, since minute doses of mercury agree with the system better, and are more promptly efficacious. In the days when no other method of using mercury was recognised, excepting the speedy production of salivation, the iodide came as a gift from heaven; but under present rules of practice we feel its need much less.

Commentary CLIX.

A case of exceptionally severe syphilis in which mercury disagreed and the iodides cured.

I may record the following case as an example both of unusually severe syphilis, and of its rapid and satisfactory cure by the iodides only. Mr. W., aged 23, came over from India for treatment in April, 1886. The date of his primary disease was about eighteen months previously, and he had already had much treatment, having more than once had his gums made sore. His existing eruption was a relapse, and had only developed in January, that is, four months before I saw him. He was emaciated and cachectic to an extreme degree, and covered with a pustular eruption, which on his face assumed the form of rupia. On his body some of the ulcers had healed, but other

new pustules were appearing. The state of his mouth was still worse than that of his skin. There were phagedænic ulcers of large size on his gums, hard palate and throat. The fangs of his upper incisors were exposed by the destruction of the gum. There were many ulcerated pustules on the soft palate. Below the instep of his left foot there was a considerable swelling, apparently a node in connection with the metatarsal bones and joints.

Taking into account the severity with which the mucous membranes were affected, the ulceration of his gums and the fact that he had already had several interrupted courses of mercury, I determined to use the iodides only. He took the three together, five grains of potassium, three of sodium, and three of ammonium, with fifteen minims of sal volatile, ten of tincture of nux vomica, and half an ounce of the fluid extract of sarsaparilla. Iodoform powder was dusted on the sores in the mouth, and iodoform ointment used for those on the skin. The improvement was rapid and uninterrupted.

No change in the treatment was ever made. Indeed, I only saw him two or three times. In November he came to show himself, being stout and strong, and having for some time had every sore perfectly healed. A portion of exposed alveolus had exfoliated. He was, of course, covered with scars, but his gain in flesh and colour was so remarkable that for some time I doubted as to his identity.

Commentary CLX.

On the remarkable tendency in certain cases for one set of tissues only to suffer ; illustrative cases of long persisting bone diseases.

We see some remarkable cases in which syphilis in its later stages clings to one set of tissues to the

entire exemption of all others. This is often witnessed when one part only is affected, but every now and then it occurs when the manifestations are multiple. It is not uncommon to see the skin affected in many parts, and severely, by lupoid syphilis. Sometimes the patient's health does not suffer, and the local inconvenience being slight, he may abstain from all treatment, and in such cases lupoid patches may slowly spread during a period of many years. Sometimes the mouth is affected, and very persistent disease of the tongue and lips is by no means uncommon, when the rest of the body is wholly free. In other cases the nervous system suffers almost exclusively. Perhaps the most intractable and severe cases of tertiary syphilis are, however, those in which the stress of the disease falls upon the bones. Whether it be from some inheritance of a rheumatic tendency, or from other diathetic peculiarity, we are not at present in a position to state, but certain it is that in some patients the periosteum and the bones appear to feel the stress of the disease throughout its whole course, with very unusual emphasis. I will relate an extraordinary and exceptional case of this kind. It is one which is, however, exceptional only in its severity, for we not unfrequently see cases which more or less approach it. We have been accustomed of late years to believe that the syphilitic periostitis has been robbed of its terrors by the iodide of potassium, and that examples of extensive disease of the skull, such as abound in our museums, are things wholly of the past. The case which I am about to relate proves, however, that this is not quite so, and that syphilis may still occasionally resist the most judicious treatment, and in spite of all advantages as regards general health, have a fatal termination. I saw in consultation with Dr. Burn, of Richmond, a gentleman who was emaciated to an extreme degree, who had open nodes

along the whole length of both tibiæ, and in whom nearly half of the surface of the skull was bare and black. He was confined to his bed, and it did not seem likely that he would live many weeks. He was taking morphia to the extent of from three to five grains every day, for the relief of his pain. A troublesome diarrhœa had recently set in, and it seemed probable that he had lardaceous disease of the liver. This gentleman had always lived well, and never intemperately; and he had enjoyed excellent health until he caught syphilis. There was a history of gout in his family. It was only eight years since the primary disease. No treatment had been adopted until the secondary symptoms had fully developed. When they appeared he was put under mercury. This drug appeared to have been freely used, both by inunctions and by baths. The latter were employed under the direction of an eminent specialist. No salivation had ever been produced. In the third year of the disease, and after much treatment, Mr. B. had on a single occasion consulted me; at that time he was suffering from nodes on the sternum, and had bad night-sweats. He believed that the iodides always pulled him down, and had taken a great prejudice to them. I advised him to take them freely in combination with tonics and small doses of mercury, and to go to the seaside in order that he might the better resist their depressing influence. After this single consultation I did not see him again for six years, when I found him in the state above described. On inquiry as to how the bone disease had been allowed to advance to such extreme lengths, I found that he had been taking medicine more or less almost from the beginning of the malady, and that iodides and mercurials had been tried in almost all possible combinations. I was told, however, that he was a very bad patient, and rarely persevered for more than a few days with any prescription. He had

most unfortunately learned to rely on morphia instead of the iodide for the relief of his pain. It is probable that if he had been more persevering the result would have been different. It is impossible, however, to deny that he had had much drug treatment, and that the disease had in a very remarkable manner resisted it. There had never been any brain symptoms, nor any disease of mucous membranes or skin, excepting such as was consequent upon the periosteal mischief. Although there had been nothing which had been recognised as rheumatic gout, there was considerable thickening of the bone near to several joints, and both fore-arms were fixed in a position of pronation, apparently in consequence of periosteal deposit on the inner side of the coronoid process. Mr. B. was thirty-two years of age when I saw him the second time, and it did not then appear likely that he would live many weeks.

CHAPTER X.

ON CASES ILLUSTRATING SPECIAL DIFFICULTIES IN DIAGNOSIS.

Is ulceration destructive of the soft palate and adjacent parts conclusive evidence of syphilis?

THE cases to which I now refer may come under our notice in two different stages. We may see them either whilst the ulceration is in progress, or after it has passed, and left only its results in form of scars and contractions. In nineteen cases out of twenty, perhaps in ninety-nine out of a hundred, ulcerative destruction of these parts, not being cancerous, is syphilitic. There remain, however, a very few cases in which it is not so, the disease being lupus of mucous membranes. The diagnosis, at first sight very difficult, becomes less so

if we keep in mind certain facts. Both conditions admit of repair, and may be followed by sound scars, but the lupus process is so very much slower than that of syphilis, that the mere chronicity of the case may generally be allowed to constitute the diagnosis. Lupus is a growth followed slowly by ulceration, and yet more slowly by healing; the syphilitic process is an inflammation, often attended by acute, almost phagedænic ulceration, but which, when once arrested, may heal very quickly. Syphilis may destroy as much in a month as lupus will do in years. With lupus there is never acute inflammation, never much pain, nor any great redness, whilst with syphilis there are usually much swelling, great redness, and often severe pain. Lupus always creeps on the surface of the parts, whilst syphilis may begin in their substance. Thus all perforations are probably syphilitic, and the scars due to this disease are more irregular than those of lupus. The history and the concomitant phenomena will, of course, give great help in most cases, but the real difficulty is where these give no assistance. It is of such cases, in which we have to rely solely on the objective symptoms, that I am speaking. Lupus of the palate and pharynx is a very rare disease, and it is usually attended by lupus of the gums, hard palate, and of the skin of some part of the face or body. There are cases, however, in which it is restricted to the throat, and these it is exceedingly difficult to identify with confidence. Their exceedingly slow course is, as has just been said, the most trustworthy datum for diagnosis. I have elsewhere published many facts in proof that almost all the cases of palate disease in young persons, which used formerly to be called scrofula, are really due to inherited syphilis. It is to be admitted, however, that even in childhood we now and then encounter lupus almost, if not absolutely, restricted to these parts. I will now relate one or

two interesting cases illustrating this latter condition.

I was indebted to Dr. Orwin, of the Throat Hospital, for an opportunity of seeing a young woman named L. L., living at Northampton, who afforded a good example of lupus of the throat. Her conditions might easily have been mistaken for those due to syphilis. Her *alæ nasi* had been notched, her voice was hoarse, the soft palate had lost its uvula, and was tied back to the pharynx, and there was a large ulcerated surface on the hard palate. On examination with the laryngoscope the glottis was found to be narrowed to a chink, the epiglottis was destroyed, and there was a band of cicatrix between the arytenoids. The facts which proved the case to be one of lupus were the following: The disease had been slowly in progress for many years; the physiognomy and teeth of the patient were good; she had a patch of acne lupus in the middle of her right cheek, and the ulceration of her nose was attended by lupus growth. In addition, the state of her gums, which were red and soft, and had left the fangs of the teeth exposed, as well as that of the soft fleshy state of the hard palate, was characteristic of lupus, and not in the least like syphilis. The patient was 21 years of age. She was not in the least deaf, and had never had interstitial keratitis. There were some superficial scars in her corneæ, due, no doubt, to strumous ulcers in childhood.

I well remember another patient, a lad of phthisical family from Sheerness, whom I had under care for many years at the London Hospital. He had lupus of his gums and hard palate, as well as lips and nose, and finally the disease extended over the borders of his palate, and attacked the larynx.

I think that I have seen five or six definite examples of lupus of the larynx. In every instance the disease was exceedingly slow in progress. If there is

loss of bone from the nose or palate, or even exposure of bare bone, the disease is almost certainly syphilis, for lupus is an affection of skin and mucous membranes, and does not go deeply.

It is needless to say anything as to the importance of this diagnosis. Syphilis, whilst very destructive if left alone, is usually easy of cure, whilst lupus is exceedingly difficult. The results of treatment, if the latter have been judiciously planned, may often serve to correct or confirm the diagnosis.

Commentary CLXI.

On a case of lupus of pharynx simulating syphilis.

Mr. Pugin Thornton, of Canterbury, brought to me in the autumn of 1886 a very interesting case of lupus of the mouth, which might easily have been suspected to be syphilitic. The patient was a young woman of about eighteen. The uvula had been destroyed, and the soft palate was adherent to the pharynx. There was extensive ulceration of the hard palate, and of the gums of the upper jaw. In several places the fangs of the teeth were extensively exposed. Mr. Thornton had two years ago done much for her relief by the use of the galvanic cautery to the larynx. At that time it had been necessary to open the trachea, but, the obstruction having been relieved, the tracheal wound was now soundly healed. The disease, as far as the soft palate and larynx were concerned, seemed perfectly cured, and she could breathe with tolerable freedom. The condition of the gums and palate, and, above all, the long duration of the disease, for it had been many years in progress, made us both feel certain that the disease was lupus, and not syphilis. The condition of the gums and palate, shown in Fig. 3 of plate 54 of my Atlas of Illustrations, would have done well for an exact

representation of the condition of things in this case. The diagnosis of lupus was further made conclusive by the existence of a characteristic patch on the toes of the left foot. This had begun in the cleft of two toes, and had been present for many years. There was a strumous family history, and the patient herself was much out of health. She had enlarged glands in the neck.

Commentary CLXII.

Gumma of the palate in a lad of remarkably good development, and without the slightest indication of diathesis; clear history.

Many years ago a clergyman brought me his only son, a youth of fourteen, but looking seventeen, very stout and muscular, and having the appearance of excellent health. There was nothing suspicious in his teeth or physiognomy, but he had a sloughing ulcer in the middle of the hard palate, which exposed bone. I was beginning to beat about for facts as to history, when his father in great distress, and much surprise, exclaimed, "I thought you would know in a moment! it is surely clear enough." I was then told that he (the father) had himself suffered from syphilis two years before his marriage, and that the lad before us was his third. The first was still-born, and the second died of "infantile syphilis" at the age of nine months. This boy was a magnificent baby, but at three months old had a slight eruption. This lasted only a few days, and he then continued to have excellent health until two years old, when he had a distinct eruption, which was treated as syphilitic.

At the age of ten he became depressed mentally, and it was feared that he might become insane. After this he was carefully examined by a distinguished physician, who declared that there was no syphilis in the case. Subsequently an eruption of eezema led to

his being put under a French physician, who, having heard the history, and looked at the boy's splendid physique, absolutely declined to believe that he was syphilitic. Yet a few months after this decision, the gumma on his palate formed.

I have only to add that the ulcer in the palate after cauterisation, and applications of iodoform with use of iodides, soon became healthy. After some bone had exfoliated, it healed soundly.

The case is valuable as an instance of not only good development in spite of syphilis, but exceptional growth. Had the father chosen to deny the history instead of volunteering it, no one could have found a single fact in support of a syphilitic suspicion. The ulcer in the palate would have stood alone. The almost absolute absence of infantile ailments explains no doubt the absence of peculiarities in physiognomy and teeth.

Commentary CLXIII.

On an unusual form of gumma.

A very singular condition of what I believe to be syphilitic gumma was presented by a stableman who was brought to me by Dr. S. of W. There were lumps on the back of the right elbow as big as walnuts and almost as hard. On the surface, at several places, a sort of lupoid ulceration was just commencing. It was this ulceration which gave the clue to the nature of the disease, and the patient stated that the lumps had been there five or six years, and had given him no trouble. He had been accustomed to speak of the first one as a loose bone on account of its hardness. The patient appeared in excellent health, was married, and had several children; his age was forty-six. There was a history of incomplete syphilis twenty years previously. He had no secondary symptoms at the time and no reminders.

Commentary CLXIV.

On a case in which the diagnosis was difficult between a second primary infection and a tertiary sore.

In the following case there was some difficulty in deciding whether the symptoms were due to a second affection or were of a tertiary character. A gentleman possessing some medical knowledge and many professional friends consulted me on account of a sore on his penis on September 15th, 1886. * It was healed over, but had very distinct induration. He had already seen several authorities on syphilis, and all admitted that the induration was definite and exactly like that of a true chancre, but as there was the clear history of a former attack of syphilis most had preferred to consider it as of a tertiary character. The history of this sore was, however, that it had appeared as a small pimple on August the 1st, rather less than one month after exposure to risk. At first it was a pimple, then three days later a scab fell and revealed an ulcer; this ulcer became a punched-out sore which was said to be "soft;" the sore healed under iodoform and then took on induration. It will be seen that it was a little more than two months from the exposure when I saw it. It was believed to occupy the site of a former sore. At the same visit I was shown a little scaly patch on the side of the cheek, to which, however, I did not give much attention.

The history of the previous attack of syphilis was definite and it had been very severe. The throat had been badly ulcerated, and a bubo in one groin suppurated. The patient was treated first by the inunction of mercury, and subsequently took large quantities of iodide. Subsequently he came to London and had mercurial baths under Mr. Henry Lee. After Mr. Lee's treatment he was quite well for twelve years.

Then there occurred a "soft sore" which lasted six weeks and was followed by a node; for the latter he again took iodide freely and got quite well until the present occurrence. Thus it will be seen that in 1869 he had complete and severe syphilis; in 1883 a soft sore and a node after twelve years of perfect health, and that again in 1886, as he believed, in consequence of fresh contagion, there was a well-characterised Hunterian induration.

But the interest of the case does not stop here. At the date of his first visit to me, on the 15th September he had an insignificant scaly patch on one cheek. Two months later, on November the 15th, when he came again, in spite of specific treatment by mercurial baths, this spot had enlarged to a big open ulcer, with a hard undermined edge and coarse granulations at the bottom. Its edge was almost phagedænic, and its appearance was exactly like what I have described in the satellite sores in the case of Mr. G. This sore, as well as that on the penis, had been pronounced to be a tertiary gumma by more than one specialist whom he had consulted. As it had begun as a pimple on the surface, and as it developed in connection with what had appeared to me to be a primary induration on the penis, I could not take this view, but was inclined to regard it as being the result rather of an accidental inoculation from the sore on the penis, at an early period after its formation. The case resembled that of Mr. G., which I have alluded to, in that this satellite ulcer had developed whilst the patient was under treatment by specifics.

Commentary CLXV.

A case of doubtful diagnosis as to relapsed chancre.

The case of Mr. R. is, like the preceding, one in which it was extremely difficult to say whether the

sores were relapsed chancres or the results of fresh inoculations. Their remarkable resistance to mercury and the appearance of satellite induration while under treatment constitute also most exceptional features. Mr. R. first consulted me in 1882, and he had then been under treatment for symptoms which were in all probability syphilitic. He had had a chancre, which he had been assured was only "soft;" but there had been enlarged glands in the groin which did not suppurate, and a sore throat with loss of hair followed. Having deserted the surgeon who said that his chancre was not an infecting one, he was treated by another with mercury. Not the slightest trace of rash had ever shown itself. When he came to me he seemed perfectly well, and I advised him to await events and do nothing more. During 1883, 1884, and 1885 he remained perfectly well. He was a man of thirty, of dark complexion, and sound tissues. Such being the previous history, on Dec. 29th, 1885, Mr. R. was sent to me by Dr. Ord on account of fresh chancres. He had two indurated half discs in the roll of the reflected penis close to the corona. One was on the dorsum and one was on the right side, and both were most characteristically hard. One of them was not ulcerated at all, and the other showed in its centre a small ulceration, but had no secretion. These indurations had been present for about a month, and had, I was told, been getting harder and harder every day. One was in the exact site of the former sore, but one was in a part which had never been previously affected. He had been assured by a surgeon before going to Dr. Ord that they were not true chancres. I took a different view, and advised that he should at once commence treatment by mercurial inunction. This was done, and he also took mercury freely by the mouth. We found it very difficult to produce any effect, and the indurations melted only

very slowly. At the end of six weeks, when they were very nearly gone, and while we were still continuing the treatment, a third induration close to the left side of the frænum made its appearance, and developed a small but characteristic collar. The mercury was continued in increasing doses for about two months longer, and the gums were at that time slightly touched. The result was that all the indurations at length disappeared. There had not throughout been any induration of the lymphatic glands, nor any secondary symptoms. There cannot, I think, be any doubt that in this case the indurations were the result of fresh infection, and that their course was modified by the fact that the patient had had syphilis before, and the fact of his sound health and the resistance of his tissues to the influence of mercury.

Commentary CLXVI.

Case illustrating the diagnosis of syphilitic headaches.

A young gentleman, aged twenty-five, was sent to me in the belief that he was suffering from syphilitic headaches. He had had syphilis three years ago, and had been under treatment for it nine or ten months, he remembered a sore throat, but it was believed that no rash had ever occurred. Latterly he had become subject to what his surgeon described as "unilateral, deep-seated, paroxysmal pain over the left frontal and temporal regions; pain never entirely absent, diminished sensibility of corresponding side of head and neck, impaired memory, etc." On proceeding to examine the patient I found that there was no defect of power in the temporal or masseter muscles, and that nothing could be proved as regards diminished sensation. He thought that the part was numb after severe pain. He described his headaches as being such as entirely disabled him from his occupation,

and said that he often did not do more than two days' work in the week. The pain was usually in the eyebrows, or forehead, or side of head, it never prevented his going to sleep, and would usually disappear as the day wore on, being almost always worst in the morning. He said that he scarcely ever woke without headache, unless he chanced to wake unusually early. Sometimes, waking early, he would find himself perfectly free from pain, feeling light and remarkably well. This temporary immunity, however, was almost always the precursor of a very severe headache, which was especially liable to come on if he allowed himself to fall asleep again. A second morning's sleep invariably produced headache, and if he chanced to sleep in the daytime for a few minutes it generally had the same result. Nocturnal emissions and sexual intercourse generally left him with a bad headache.

These facts fitted far better with the supposition that his headaches were those of hemicrania than that they had anything to do with syphilis, and on inquiry as to his family history he told me that his father had suffered terribly from headaches just like his, and further, that one of his sisters was frequently laid up with headache on the same days as himself.

He had also been liable to headaches of a somewhat similar character, though not so severe, before he had syphilis. On inquiry as to other accompanying conditions I found that he was not liable to constipation, nor were his hands and feet usually cold when his head ached. On the contrary, his hands and feet were warm and moist. He had observed that the slightest amount of draught in the room would make the left side of his body feel chilly. Both tea and coffee disagreed with him, and the latter always kept him awake.

Although it was impossible wholly to put aside the suggestion of syphilis, yet I could find nothing

in the case which pointed definitely in that direction. Even the history of his syphilis was somewhat doubtful, and he had during the last two years had no reminders, nothing, indeed, that was in the slightest degree suspicious, except his headaches. The fact which he mentioned as regards a second sleep in the morning is exactly one which is very common in the headaches which we may suppose are due to venous congestion. The syphilitic headache is usually a nocturnal one, whilst this was always worse in the early part of the day, and ended as night came on. These facts, taken together with the family history, seemed to justify a confident assurance that he was not suffering from syphilis. I advised him to try the effect of tonics, cold bathing, etc.

Commentary CLXVII.

Lupus erythematosus imitated by syphilis.

The imitation of lupus erythematosus, which may be produced by syphilis, is one of unusual interest as an example of pathological law. Not only are the local process and clinical course closely simulated, but the special regions affected by the one are precisely those chosen by the other. It may affect symmetrically the nose and both cheeks and the concha of each ear. It may simulate the non-specific form so closely as to deceive even the most skilful. On the other hand, when once suspicion is awakened there are generally minor features of difference to be noticed. The syphilitic form is as persistent as the common one, unless properly treated, and in some cases is just as slow in progress. It resists specifics often in a remarkable manner, or at any rate refuses to be cured; it is probably always much restrained and modified.

I have seen many cases in which the features of erythematosus lupus were approached more or less closely

by an inflammation of the skin due to syphilis, but I shall, for the present, content myself by describing in detail only two. I may remark that in the case of one of the most typical of the examples of common lupus erythematosus published in my Lectures, the patient is a gentleman who in early life had syphilis, and who is constantly urging me to treat him with reference to it. He has in the interval had a large healthy family; the chilblain tendency, and the injurious influence of exposure to cold, are in him so marked that I have always hitherto refused to entertain a suspicion of specific taint. I may here remark that it is, I believe, always the existence of a chilblain diathesis which predisposes a patient, when suffering from syphilis, to exhibit a counterpart of lupus erythematosus. In this fact we have an important proof of the influence of pre-existing idiosyncrasy in modifying the events of syphilis.

The first case which I shall mention is that of a Mrs. L., a still comely woman of 42, in good health and free for long from all indications of syphilis, excepting her lupus. She has been twice married. In the first instance she was twenty-three years of age and in perfect health, but liable to suffer much from chilblains. Within a few months of her marriage she became the subject of syphilis and had a severe eruption. So far as she can remember (it is now seventeen years ago) the patches on her nose and in her ears were left when the rest of the symptoms cleared off, and were therefore part of the secondary phenomena. (This, I may remark, is exactly the history given by my other patient, whose case I shall next relate.) The secondary eruption would appear from her account to have been followed by lupus sores on various parts. She had them on her thighs and legs, and they have left scars. She was several years under treatment; indeed, she has taken medicine on and off almost ever since.

At the present date, after being under my care at long intervals for eighteen months, Mrs. L.'s condition is as follows : The bridge of her nose is occupied by a scar, which is quite sound at the lower part, but at its upper part and sides presents a red erythematous border. It is a little thicker and more raised than that usually seen in lupus erythematosus. It extends on the sides of nose just to the cheek, and is quite symmetrical, but the cheeks themselves are not involved. There is no active disease at present in either ear, but the whole of the left ear, the helix as well as the concha, is in a condition of thin scar. In the right ear the scar exists only in the concha.

The whole of the lower lip, both prolabium and skin, is involved in a thin scar, which has a spreading erythematous edge. Here, again, the edge is a little swollen, and presents, in parts, a thin crust. I do not think that any one looking at this lip would hesitate to pronounce the disease specific, although it might be difficult to mention any particular phenomenon in which it differed from erythematous lupus.

The same remark applies to the nose. There is more of inflammation in the parts still involved in disease, and a more depressed scar in those which it has left, than are usually seen in common lupus erythematosus.

As regards the ears, there is also a feature of difference ; in that on the right side, the whole of the outer ear has been brought into the condition of a thin scar and every trace of erythema has ceased. This extensive spreading and complete cessation are, I think, seldom seen together in the non-specific form of the disease.

One might have been tempted to say that a feature of difference was to be found in this case in the extreme slowness with which the disease had spread. This would be, however, in all probability, a mistake, for its slowness has been due simply to the fact that

the patient has been constantly under treatment, and the disease all but cured.

What I particularly want to draw attention to in this case is, that we have in it an example of a lupus-like form of serpiginous inflammation of the skin, certainly due to syphilis, but arranged on the pattern of lupus erythematosus. Thus it began on the middle of the nose and spread on its sides, and next appeared symmetrically in the concha of each ear. Its persistence during fifteen years is a very remarkable feature of resemblance; especially when we note that it has held its ground in spite of long-continued specific treatment. Had it not been treated, however, probably it would long ago have covered the whole face, and it is to be remembered that in the ears and on the hands and other parts of the body the remedies have effected a complete cure. Only on the nose and lips does the disease still persist.

Our patient, although now appearing to be in good health, suffered very much from chilblains in early life, and one of her sisters had glandular abscesses. In these facts as to the constitutional predisposition we probably have the explanation of the peculiar character which her syphilitic eruption has assumed.

I must add, respecting treatment, that in my hands the cauterisation of the patches with the acid nitrate of mercury effected far more in the way of cure than several months of administration of the iodide of mercury had done.

My next case is one in which the features of lupus erythematosus were still more closely simulated. The resemblance to the common form was indeed so close that for some time I mistook the case, and even to the end there might be held by some observers to be a doubt as to whether the disease really was specific. I can give no better proof of the closeness of the simulation than the mention of this doubt.

Commentary CLXVIII.*Lupus erythematosus on nose and in ears, possibly syphilitic.*

In the case of a woman named C., aged about thirty, the simulation of lupus erythematosus by an eruption which was probably syphilitic, was exceedingly close. I believe that at the time of the International Congress she was shown at the museum as an example of lupus erythematosus, and without any criticism. She had then a patch covering the greater part of the nose, and symmetrical patches in the concha of each ear. I was not then aware that there was a history of syphilis; it was supplied subsequently by a surgeon who had attended her, and who had been treating her for periostitis of the skull up to the time of admission under my care at the Skin Hospital.

From the date of the Congress in 1881 to January, 1884, I did not see her. But she had been through this period on and off under Mr. Tay's care, and had taken iodide of potassium and arsenic for long periods. The result had been that the disease had been to a large extent cured. The patches in the ears were now simply in the condition of scar; on the nose there was a considerable scar, and near its edges were three or four distinct crescentic patches of lupus. It was difficult to say that these patches differed definitely from lupus erythematosus, but there was rather more of thickening and less of surrounding erythema than is usual in that disease. The scar that had been left was attended with more depression and was much more conspicuous than those usually seen after lupus erythematosus. It appeared probable that the disease had been kept in check, but never quite cured, by the iodide of potassium treatment. I suggested that as a sort of test of the disease we should cauterise the patches. This was

done on February 4th, 1884, and with excellent results. The patient at this time was in good health, and the tendency to nodes had long since ceased. The history was that she had had sore throat and eruption about three years before her first admission to the hospital, 1881, and that when the eruption disappeared, the spots on her nose and in her ears were developed.

Commentary CLXIX.

Two cases of recurring erythematous eruptions of the trunk at long periods after syphilis.

Two patients called on me on January 11th, 1887, whose conditions and previous history were precisely alike. Both gentlemen were in perfect health, and both had a dusky erythematous eruption on the trunk and upper limbs. The same words would describe the eruption in each. It consisted of blotchy, ill-defined patches, from the size of a threepenny bit to a sixpence, of a dull purplish colour, and disappearing very easily on pressure. In neither did the rash itch, and each declared that he should not have known it was there if he had not seen it. In both it was most conspicuous on rising in the morning. In neither was there any history as to new vests, or of sleeping in the vest, or any other probable source of local irritation. The weather was cold.

In Mr. M'L. (case 1) it was three years and a half since the syphilis. He took, under my advice, small doses of mercury for nearly two years, during the greater part of which time he was without symptoms. He was the subject of albuminuria, and we always gave mercury carefully. During most of the time he was going about as usual, and hunting, etc., regularly.

In November, 1885, I told him to leave off his pills, it being then two years and a half since the

disease. On January 30, 1886, he came to me with a blotchy erythematous eruption, very faint but quite definite. It was limited to the vest regions, but he had not had any new underclothing. He was suffering from a bad cold when it came out. I gave him the mercurial pills again, and on February 20 my notes state that all traces of the eruption had disappeared. We again left off the pills, and I saw no more of him until exactly a year later, when he came, as already described, with a recurrence of an exactly similar eruption.

The subject of case 2 is Signor V., an Italian gentleman, aged about forty-eight. He had been under my care for a relapse of syphilitic eruption in April, 1886. He got quite well in two months under mercury. His original syphilis had occurred a year before. On September 16 he had been two months without any medicine, when a copious erythematous blotchy eruption appeared on the whole abdomen and chest. Small doses of mercury were again given. The rash vanished in a fortnight, and he did not let me see him again until, in the following January, he came with another relapse of the eruption.

I do not think that in either of these cases there can be any doubt that the eruption was at any rate predisposed to, if not caused by, the previous syphilis. As in the other cases which I have mentioned, there were no concomitant symptoms of persisting taint, no sore throat or periosteal pains. The eruption was a very trifling ailment, disappearing directly under treatment, and showing no tendency to advance beyond the stage of erythema. That its location was influenced by the irritation of the vest seems very probable, though nothing definite could be made out in this direction.

It is a speculation of some interest as to the possible occurrence of similar states of congestion in

concealed parts in the intermediate or tertiary stages of syphilis. They are well known in the case of the tongue, and it may be that the brain, spinal cord, periosteum, etc., are liable to slight congestions, which have a tendency to return after long intervals, and are easily relieved by treatment. Obviously such congestions are wholly different from inflammations, which are serpiginous, or which produce growths of the nature of gummata.

Commentary CLXX.

On cases of multiple ulcers in the legs, etc., which assume the features of syphilis, but are possibly not specific.

Two cases which were very difficult of diagnosis, and in which, after prolonged treatment by specifics, I was still unable to form a confident opinion, were under my treatment in 1885 and 1886. The cases were remarkably alike, and in each the patient was a married lady. The condition presented in each was that of numerous small ulcers occurring chiefly on the legs. These ulcers, which began as little boils, or in some instances as subcutaneous indurations, spread slowly at their edges, and assumed appearances which would, I am sure, have led any one, at first sight, to diagnose syphilis. Yet in neither case was there any strongly suspicious history, and in neither did the ulcerations respond definitely to syphilitic treatment. If the cases were not syphilitic, I should be wholly at a loss to name them. They were certainly not like any condition of skin disease which has as yet received recognition in our nosological lists. A remarkable feature in each case was, that the disease was symmetrical, although if syphilitic, it was probably a very late phenomenon. The cases are of sufficient interest to merit a brief description. I saw Mrs.

Q. in consultation with Mr. Peter Cooper of Blackheath, in November, 1884, and several times subsequently. She had been married seven years, and had two healthy children, the youngest eighteen months old. The sores on her legs had begun to show themselves first about three months before our consultation. It was at a time when Mrs. Q. considered herself in good health. They began as painful tubercles, which ulcerated and spread superficially. Some of the largest ulcers were bigger than a crown piece, and they had dusky undermined edges. Mr. Cooper had tried iodides, arsenic, and mercury internally; and iodoform and black-wash had been used locally, but with no good result. There was no history of sore mouth or sore throat, or of any other condition indicative of syphilis. Nor was there any proof that her husband had ever had syphilis.

After treatment extending over more than a year, we succeeded in getting all the sores healed. But it was impossible to say what measures of treatment had most conduced to this result. The gums had been twice made sore with mercury, and on each occasion without any conclusive benefit. Iodoform had at one time appeared to do much good, whilst cauterisation of the sores with acid nitrate of mercury had been followed by their extension rather than otherwise. Arsenic and opium had both been employed over long periods, and the patient had been sent to the seaside. At one time the spots threatened to extend to the thighs, and once a few chronic pustules showed themselves just below the elbow. But with these exceptions, the disease was confined to the fronts of the legs. My impression is, on reviewing the treatment, that it is probable that the mercury, which was repeatedly given, did help the cure, but it is certain that at no period was its influence marked.

The subject of my second case was again a married lady in apparently excellent health. She had been under the treatment of several very skilful surgeons, and had tried both syphilitic remedies, change of air, and continental water-treatment. The surgeon who sent her to me described the sores, which were numerous, and on both legs, as being "deep and punched out, and while healing covered with a rupia-like crust." Under treatment these characters had been considerably modified. But the sores which healed never became quite sound, and fresh ones still continued to appear. Both legs were affected from a little below the knee to near the ankles, and were covered with ulcers, or with dusky livid indurations. The legs were so much inflamed and so painful that she had kept her bed or couch for three months before I saw her. There were a few small blotches or indurated spots just above the knees. On the backs of the arms just above the elbows were groups of dusky spots, none of which were much indurated and none ulcerated. The first sore had appeared on the right leg six years ago, and since then, with many periods of partial cure, they had been steadily increasing in number. The perchloride of mercury, in combination with iodide of potassium, had been frequently pushed, and with very good results, but never with complete cure.

My first diagnosis in this case was, as had been that of others, very confidently in the direction of syphilis. I found, however, little or nothing in the family history to support this opinion. Mrs. D.'s husband told me candidly that two or three years before marriage he had had a venereal sore; so far as he could recollect, however, it lasted only two or three days, and nothing followed it. They had been married thirteen years, and had four healthy children. Mrs. D., in the early part of her married life, had

enjoyed excellent health. There had been two or three miscarriages.

The results of treatment as bearing upon diagnosis were in this instance, as in the preceding, most difficult of estimation. I gave both mercury and iodide of potassium ultimately, and in combination through long periods. Indeed, Mrs. D. remained patiently under my observation for nearly two years, and during most of this time she was using mercury. We employed inunction methods as well as administration by the mouth. She was not easily influenced by it, and required more than the usual doses. The gums were, however, repeatedly made slightly sore. Neither the patient nor myself would, I think, have been willing to go on with this very prolonged treatment, had it not been that we seemed to be constantly on the point of succeeding in producing a cure. Many of the sores on the legs healed, and she became able to walk about as usual, and it appeared to be unquestionable that improvement followed when mercury was pushed. We never, however, got the legs quite well. Relapses continued to occur, and in particular some sores formed above the wrists, which had not been present in the first instance. These healed, but left dusky, livid scars, like those on her legs. Through the whole of this treatment Mrs. D. retained the appearance of excellent health. Occasionally the mercury caused diarrhoea, and made her feel weak. But if she left it off for a time she was able to declare she had never been better in her life.

I have since seen another case in which the condition of the legs was exactly like that in the two patients above referred to. In this instance, three or four of the best skilled observers in London pronounced, with great confidence, that the disease must be syphilitic. The legs showed a number of

scattered ulcers about as large as sixpences, abruptly margined, and with grey unhealthy surfaces. The two legs were alike. The patient, who was a healthy looking man of fifty-five, had also a curious patch on one arm as big as a five-shilling piece, and lupoid in character. This also was considered by all who saw it, to be, in all probability, syphilitic; yet the patient's history was absolutely negative. He had a healthy family, and denied with apparent truthfulness that he had ever suffered from any form of venereal disease. Had it not been for my experience of the two preceding cases, I might, perhaps, not have attached much importance to his denial. Placing the cases side by side, however, and remembering that after all we do not meet with precisely similar ones in cases with unquestionably syphilitic history, I am inclined to hold my judgment suspended. In saying that we do not meet with their exact parallels, I mean that we do not see cases in which, in the late tertiary stage of syphilis, ulcerating eruptions are developed on the limbs with exact symmetry. This was the exceptional feature; in all three cases the two legs were exactly alike, and in one both arms were also symmetrically affected, though to a much slighter extent than the legs.

I carefully studied the initial lesion in these cases, more especially in that of Mrs. D. It did not appear to be always the same, consisting in some instances of an indurated knot under the skin, possibly around a vein or lymphatic; and in others of a large and very slowly progressive lichenoid tubercle, developed around a hair follicle. After ulceration had taken place, the sores always tended to the formation of low rupial scabs.

We see, of course, many cases in connection with syphilis, in which ulcers, exactly resembling those described, are developed on the legs. But I repeat

that they are not persistently symmetrical, and that they are easily amenable to specific treatment.

Commentary CLXXI.

Lupoid affection of the glans penis, probably in connection with syphilis.

I attach considerable importance to the generalisation which I have ventured to make in other parts of this work, that almost all the really tertiary affections of the skin and mucous membrane are lupoid in character. By this it is meant that they are attended by a process of cell infiltration which is contagious to the adjacent parts, and that they spread at their edges indefinitely, leaving scars where healing has taken place. Sores of this kind are never seen in the secondary period (with the rarest exceptions), whilst they are very common at periods of from five to twenty years after the primary disease. The mucous membranes, as well as the skin, are sometimes affected by this form of serpiginous inflammation. The difficulty of diagnosis always concerns common lupus, and in many cases it is quite impossible, apart from history, to determine whether the disease should be considered specific or not. I have seen it occasionally on the glans penis. A very marked example of this came under my observation in the person of a surgeon-dentist. His glans showed large patches, which were slightly raised and of a dusky reddish-yellow colour, but not ulcerated; where it had subsided a scar was left. It had been present and slowly spreading for three or four years. At the first consultation I expressed my conviction that it must be syphilitic, but my patient assured me that he had never had any disease. He admitted, however, that he had once consulted a surgeon for sores in the throat, and had been assured that they were syphilitic. On the second

occasion I obtained better evidence. He then told me that he had suffered about twenty years ago from a very troublesome sore on one finger, which had been caused by an injury from one of his instruments. It remained open for three months, and a surgeon who saw it thought that it must be a chancre. Not long after this he married, and his wife and himself had bad sore throats at about the same time. His wife bore fifteen children, of whom, however, only four were born alive, whilst of these four only two were reared. Such facts left but little doubt that he was really the subject of syphilis, and that his lupoid patches were in connection with that taint.

Commentary CLXXII.

On coffee-stain patches on the legs.

There is a curious form of eruption to which, in my note-books, I am accustomed to apply the term "coffee-stain patches." It is seen most frequently on the legs, but sometimes on the trunk and arms also. The patches are not thickened, scaly, or sore, but consist simply of stains of a yellow-brown colour. The degree of tint varies in depth in different cases, but always resembles more or less closely the stains left by spilt coffee. The patches are usually abruptly margined, of very various sizes, and near to the larger ones are commonly seen a number of smaller ones, as if produced by infection. They are extremely persistent, and always spread slowly at their edges. They do not usually itch.

In a large majority of cases the coffee-stain patches are seen on the legs of those who have formerly had syphilis, and sometimes their connection with that taint seems definite. In many persons, however, I believe that they are wholly without such association. Some slight differences may sometimes

be recognised in those cases which are syphilitic. Thus the tendency to creep at the edge and to get well in the centre, to assume a crescentic rather than a round form, is sometimes observed, and occasionally by the aid of a lens it may be proved that, when the disease has passed, a very slightly marked condition of scar has been left. When this last-mentioned fact can be proved, it is clear that the morbid process allies itself to lupus. When the diagnosis of syphilis can be established, and especially when the characters of a very superficial form of serpiginous lupus can be recognised, the patches usually yield to specific treatment. In rare instances I have seen this kind of eruption occur over the whole surface. When this happens I think it is almost invariably syphilitic. I will relate a remarkable example of it:

Mr. C., a very robust man, of fair complexion, consulted me on account of an eruption which, he said, had been left by an attack of syphilis six years before. He showed me large coffee-stain patches on both legs. They were scarcely scaly, and scarcely thickened, but might have been called pityriasis, or dry eczema, according to the individual preference of the nosologist. They gave him no trouble whatever. Having made him strip, I found that his arms and trunk were covered by similar patches. The shape of the patches was everywhere peculiar. They were neither nummular nor in streaks, but in irregular bands and crescents. In some places one border was evidently aggressive, and the other fading. They were fairly symmetrical, and were seen most plentifully on the fronts of the arms and on the abdomen.

Mr. C. told me that he had not had any treatment for the eruption for four years, and that it caused him no annoyance, excepting that he could not venture to strip in public. The history of his syphilis was that he had, six years ago, had a sore which his

surgeon assured him was "nothing" until an eruption appeared. The rash was general, severe, and formed sores, and he had warty growths in the middle of posterior part of tongue. When these symptoms showed themselves mercury was freely given, and salivation followed. He subsequently took iodide of potassium. In the course of a few months he was apparently well, and before the end of a year all treatment was laid aside. Not long after this some of the present eruption began to appear, and it had continued with variations ever since. Mr. C. had no other symptoms of persisting syphilis, excepting that the middle of the posterior part of his tongue was still hard, and showed some tendency to papillomatous growths. He had lived freely, smoked much, and enjoyed uninterrupted good health.

We have in this case an instance of a symmetrical and general eruption present at so long a period as six years after the primary disease. It must be noted, however, that it was not a new outbreak, but a persistence of one which showed itself within a year; nor was it an eruption of the secondary type. The first outbreak had been of a quite different type, and had cleared away. The present one, in its spreading edges and crescentic forms, showed a slight tendency to the lupoid character. None of the true secondary eruptions spread at their edges indefinitely. We must regard this as a sort of link between the secondary and the tertiary period, and must remember that it occurred to a patient who, in the first instance, had been very freely mercurialised, and who had of late wholly abstained from treatment.

Commentary CLXXIII.

A severe eruption resembling lichen planus after a supposed chancre in the hand; loss of hair and other symptoms; not really syphilis.

I have seldom seen a case which presented greater difficulties of diagnosis than that of Mr. A. He came to me to be treated for syphilis, and showed me (May 19, 1885) the site of the supposed chancre on his hand. He had lost his hair, and had had a sore throat, and was covered with a dusky eruption, yet the conclusion which I finally came to was that he was not syphilitic. The eruption which he first showed me was on his legs and thighs, and occurred as groups, and streaks of smooth and polished patches. These were very dark indeed. There were others like them, but not so dark, on his back, and a few on his arms. My first thought was, that it was a very perfect simulation by syphilis of lichen planus. Subsequently I had to query, "Is it syphilis at all?" The sore which he believed to have been a chancre was on the fleshy part of the back of his thumb. It was now quite healed, and existed only as a dusky area, about the size of a shilling. He thought that he had caught the disease from the towel of one of his clerks, who was known to have been very ill with syphilis. Against the belief that this patch had been a chancre, was the fact that there was a precisely similar patch on the other hand, that the two had come almost at the same time, and that neither had been attended by any bubo. The dates could not be assigned with accuracy, but probably the rash had come out within a month of the beginning of the chancre, that is, too early. The supposed chancre had never been ulcerated. It was described as a sort of blind boil which had flattened, and which had itched intolerably. Part of this

eruption had been hard, horny patches, in the palms of his hands. These were exactly like syphilitic psoriasis. Within the last six weeks Mr. A. had become almost bald. His hair had fallen in irregular patches from almost the entire scalp, and also from his whiskers. It had begun in a patch at the back of his head. I have never seen syphilitic alopecia exactly like this condition. There was no eruption in the scalp or face. Although Mr. A. had been told by his surgeon that he had a syphilitic sore throat, I could find nothing characteristic, only congestion which might be catarrhal. On the other hand, in support of the suspicion of lichen planus, there were numerous little, white, rice-grain specks in his cheek pouches. These were not in the least sore. The eruption had from the first itched intolerably; he could almost, he said, "tear himself to pieces."

The absence of bubo, the symmetry of the supposed primary lesion, the itching of the eruption, the absence of sore throat, the rice grains in the cheeks, and the areate character of the baldness, made me inclined to doubt the diagnosis of syphilis.

Mr. A., in answer to inquiries, told me that he had naturally hard and dry palms, and that on a former occasion, some years ago, he had experienced a little watery eruption on the backs of his hands. His skin was, he said, always irritable, and prone to blister.

On the hypothesis that the case was lichen planus and not syphilis, we have the curious feature of baldness, and the fact that the eruption was preceded by symmetrical patches ("blind boils") on the thumbs.

Mr. A. was aged forty-eight, married, and had never in his life had syphilis.

I saw Mr. A. again in August, and made the following notes: The dusky symmetrical patches, supposed to have been chancres, remain on his thumbs, but they are mere stains.

His scalp hair is growing again quite blanched. The alopecia is not absolutely diffuse, but a little patchy and the hair grows in tufts. He draws my attention to the fact that the hairs on his legs, where the eruption chiefly is, have not fallen out.

The pallor of his scalp and its white hairs contrast strongly with his deeply browned neck.

In April, 1886, I wrote to Dr. D. to inquire after his patient, and he was good enough to inform me that he had quite recovered. He had taken no medicine for four months, and was in excellent health. There were still, however, some bare places on his scalp.

The recovery had resulted without the use of specifics, and there could, I think, be no doubt that the disease was not syphilis.

Commentary CLXXIV.

On certain errors in diagnosis.

It may not be without its use if I attempt a brief enumeration of some of the more common errors which those not specially experienced in reference to syphilis are liable to make.

As regards the primary chancre, nothing is more common than the giving of an erroneous opinion that the chancre is not an infecting one, simply because the stage of induration has not arrived. The cautious surgeon will never venture an opinion on this point till four or five weeks from the date of contagion have passed. It is necessary also to sift with the greatest care the patient's statements as to dates.

Now and then very minor conditions of induration may be, by the inexperienced, considered characteristic. This error is especially pardonable in cases in which caustic has been applied to a sore, for the induration thus produced may be very deceptive.

I have repeatedly known molluscum contagiosum, when occurring on the genitals, whether male or female, mistaken for chancres; and occasionally the same error is committed in the rare examples of molluscum contagiosum on the body of an adult. *Tinea versicolor*, from its yellow-brown colour, is very frequently mistaken for a secondary eruption when it is discovered in a patient who has had a chancre. The same remark applies to common acne, and to the dusky erythematous eruption which follows the use of *copaiba*. When the syphilitic eruption is of the form which resembles small-pox, it often leads to mistakes, as I have already said. (*See* pages 23, 83, and 150.) I have several times seen patients who were the subjects of this eruption either placed under strict isolation at home, or transferred to a small-pox hospital, under the belief that the disease really was variola. Attention to dates and temperatures will generally save from such a blunder; it is one that may be very easily committed if we regard only the character of the eruption.

The eruptions which occur as relapses after treatment has been carried out for a considerable period and then relinquished, not unfrequently resemble scarlet fever, and I have known them treated as such. On the other hand, it is very common to mistake eruptions which result only from the irritation of woollen clothing on the chest and arms for syphilis. In any case in which the eruption is strictly limited to the regions which the patient's vest touches, and does not occur on the head, face, and limbs, whatever the patient's antecedents may have been, the suspicion should be entertained that it probably is not syphilitic, and is due only to the vest.

Commentary CLXXV.*On nodes without any evidence of syphilis.*

Instances of periosteal nodes, that is, of limited local thickening in connection with the surfaces of bones, are so rarely seen excepting in connection with syphilis, that their presence is usually held to be almost pathognomonic of that malady. It is necessary, however, to exercise a little caution in this matter, for there appear to be a few cases in which the usual conditions of syphilitic nodes are exactly simulated, whilst there is no evidence whatever of the existence of taint. Nor does the influence of specific drugs give us much help, for iodide of potassium is useful in all bone affections, whether rheumatic, syphilitic, or in connection with other causes. It may be of interest to narrate briefly the particulars of two cases in which nodes were developed, the negative history being very strong. I am well aware that neither in these, nor, perhaps, in any, is it possible to feel quite certain as to the absence of taint. In the first of these cases, a lad of ten was brought to me by his father, a distinguished member of the Society of Friends, who had older and perfectly healthy children. The boy had on the right side of his head, just above the temple, a large, well-defined swelling. It was as big as the palm of the hand, and so thick in the middle as to be quite visible to the eye. Towards its edges it sloped off gradually. It had been present for some months, and its formation had been attended by little or no pain. The boy presented no indications of inherited syphilis, and his father denied its possibility. I was acquainted with the boy's parents and family, and have every reason to believe that the denial was truthful. As there were no indications of the formation of an abscess, I could only diagnose the

swelling as being either a tumour or a node. Under treatment by the iodide of potassium, in conjunction with the iodide of iron, in a few months all traces of the swelling disappeared. This case occurred many years ago, and nothing has happened since to throw any light on the nature of the periostitis. The lad was not in any definite degree either strumous or rheumatic.

My second case is that of a gentleman, aged 39, who was sent me by Dr. George Weller, of Wanstead. I first saw him in October, 1883, when he had a hard bony node on the lower half of the right tibia. He had known of it for seven or eight years, and it had given him no pain whatever. He utterly denied all history of syphilis, and he had two healthy children. I saw this patient again in 1886. In the interval, on account of failure of health, and attacks of hæmoptysis, he had left Wanstead and gone to live in Devonshire. The node had considerably increased, having gradually spread up the tibia. It was still quite painless, excepting when knocked, and it had never kept him awake at night. On the first occasion I had prescribed for him some iodide of potassium. This he took for six months, with the result, as he now told me, that the node was for a time quite stationary. Of late he had had no treatment, and it had gradually advanced. He had no nodes elsewhere, nor any other indications of syphilis.

Commentary CLXXVI.

On a remarkable form of periphlebitis in the tertiary stage of syphilis.

The following case is a very interesting example of periphlebitis in connection with syphilis. An architect, aged 52, Mr. R. C., was sent to me by Dr. R., of Hampstead, on account of a large diffuse gumma in the left calf. Near to it were several

dusky stains of former sores. My diagnosis was that the gummatous infiltration occurred around veins, for although in the main it was cake-like, it was arranged somewhat in convoluted ridges, and from its borders there projected thick cordy indurations which were suggestive of venous thrombosis. Clearly, however, the induration was chiefly due to processes occurring outside the vessels. The indurated mass was about a hand's breadth above the ankle, and extended upwards about half-way over the calf. The diagnosis of syphilis was fully confirmed by the result of treatment. Iodide of potassium with mercury was given, the treatment beginning on February 12th. On February 24th he was much better, and by the end of March the whole mass had cleared away, and only a puckered subcutaneous cicatrix, with much brown staining, remained. In April all treatment was left off, and I did not see Mr. C. again until December 28th. At the latter date, although he remained in good health, a new local trouble had developed itself. The opposite leg (the right one) had, for two months, been giving him much trouble with pain and aching, which disabled him from walking. His account was that, quite suddenly one morning, two months before, just as he was sitting down to work in his office, the foot began to feel numb, and as if asleep. That night, and for several nights after, the foot and the leg ached, so that he could not get to sleep. There was no tenderness at any one part, but the foot felt cold and numb, and he was quite unable to keep it long in the same position. These symptoms had lasted the whole two months preceding the date on which I saw him, but he had been gradually improving. The chief remaining inconvenience was that the leg ached if he walked much. During the whole two months he had not been able to walk more than a few hundred yards at a time. There had been 1.0

local loss of sensation, and no defect of any muscle or set of muscles. The aching, etc., had involved the whole foot and lower part of the leg equally. In proceeding to search for an explanation of these curious symptoms I had him stripped, and carefully compared the two limbs. In both, the tibial arteries beat so feebly that they could not be felt with any certainty, but there was no difference to be proved between the two sides, and the temperature of the two feet was equally good. Mr. C. directed my attention to a swelling in the middle of his right thigh. It was deeply placed, fusiform in shape, and occupied exactly the position of the vessels at the upper part of Hunter's canal. There could, I think, be no doubt that it was caused by thickening around the vein. As such it had been diagnosed by Dr. R. throughout the treatment. Whether the thickening involved the artery or not, could not be decided with certainty. There was no pulsation in connection with it, but the artery could be traced to its upper apex. This swelling was absolutely painless, and had been so throughout its course. Mr. C. told me that he had discovered it quite by accident more than a month before the numbness in the foot set in, and that it had been much larger before I saw him. Its diminution and the improvement in the other symptoms had occurred whilst taking the same prescription which I had given him on the former occasion (iodides). Although Mr. C. said that the foot of the affected side had been much colder than the other, yet he did not describe anything suggestive of threatened gangrene, and the two feet were so exactly alike when I saw him as regards warmth and colour, that I can scarcely believe that the artery was occluded. There is little doubt that the vein was so. The absolute painlessness of the swelling, its relief under specific treatment, and the fact that it had followed a phlebitic gumma in the other leg, make

it extremely probable that it was really due to syphilis.

In order to complete the case, the history of the attack of syphilis must now be given. It comprises some facts of considerable value. Mr. C. had been married nineteen years, and had six healthy children. His syphilis had occurred when he was eighteen, that is, thirty-four years before I saw him. He was under treatment for three months, and was salivated, and, as far as his memory extends, he never had any eruption. After the cure no reminder of any sort occurred for twenty-two years. He then had a sore on one leg, which a surgeon whom he consulted said was syphilitic, and cured quickly by specific treatment. Two years later the site of the original chancre again became irritable. It was ulcerated for a month or two, and did not get well until after free treatment by iodide. After this, for five years, he was quite free from symptoms, and then, in the beginning of 1882, he again needed treatment on account of some ulcers over the left shin. These having been made to heal, he again remained free from symptoms until the phlebitic gumma formed on the right calf, which has been described in the beginning of the case. His general health was throughout perfectly good, and his children were for the most part remarkable for health and vigour.

Commentary CLXXVII.

On psoriasis palmaris.

The affections which pass under the name of palmar psoriasis vary much in character when in association with syphilis. They take their peculiarities from the special stage of the disease at which they are found. Those which occur in the late periods of syphilis often present great difficulties as to diagnosis.

It may be impossible to say whether they are really specific in their nature, or due only to local causes. Two cases which came under my observation on the same morning may serve as examples of the differences referred to.

A young man, whose first chancre dated only five months previously, had both his palms covered with patches where the epidermis was broken up, and on parts of which it was accumulating in scale crusts. The patches were separate, and varied in size from a pea to a halfpenny. They were all abruptly margined. The two hands showed similar conditions, and there were patches also on the soles of both feet. These conditions were coincident with a psoriasis eruption in the forehead, scalp, shoulders, neck, and limbs, and with sores on the tonsils and sides of the palate. On the trunk there were a few patches, but not many. Everywhere the eruption approached the characters of psoriasis, but the scale crusts were, as usual in the syphilitic form, only thin. The patient had been insufficiently treated by iodide of potassium only, and thus his symptoms had persisted. His chancres, of which there had been two, one at the meatus and one on the frænum, had scarcely disappeared. Here, then, we have a good example of a true syphilitic psoriasis occurring as a part of the secondary eruption, and we find it affecting the palms and not the backs of the hands. It presented also the usual peculiarities of being of a reddish-copper colour.

My next patient was a gentleman of fifty-three, in splendid health, who had suffered from syphilis nineteen years ago. He had been treated in the first instance by Mr. Langston Parker, of Birmingham, and had been cured by mercurial baths. The cure appeared to have been a good one, for he had ailed nothing since, until within the last six years, during which his left palm had been affected by "psoriasis."

The condition was a slight erythema, which affected the whole palmar aspect of the hand and all the fingers. It extended over the front of the wrist also, and at this part had a few separate patches. The palm was simply dry, red, and rough, with numerous little pits where the epidermis had been broken up. There were no scale accumulations, nor any fissures, nor was the edge of the patch in the least swollen. The condition was essentially diffuse, implicating the whole palm, and no other part. The opposite hand was scarcely affected, being simply a little more red and dry than natural. The only other relic of syphilis which the patient presented was a bald and superficially sclerosed tongue, in which he fancied that a little lump had recently developed. The latter was so indefinite that I could scarcely be sure of its existence. The condition of diffuse "psoriasis" of the palm presented in this case is a very common one in the late stages of syphilis, but it is one which it is almost impossible to feel sure about as to whether it is really due to the syphilis or not. No doubt it is much influenced by local irritation, the use of tools, etc., just as the chronic sclerotic atrophy of the mucous membrane of the tongue is by the habit of smoking.

If we contrast the two cases we may usefully note that the palmar psoriasis of the secondary stage is always symmetrical, whilst that of the tertiary one is only accidentally and exceptionally so, and that the former is in patches and not diffuse. By far the chief feature of clinical difference, however, is as regards the influence of drugs. The psoriasis of the secondary stage will vanish rapidly under the use of mercury, whilst the other will persist for years, in spite of all treatment, especially if the patient continue to use the hand in any way involving pressure on the palm.

If we may take these two cases, as well illustrating the two extremes of syphilitic palmar affections, it

may next be remarked that between them we have several other varieties which share their peculiarities. Within short periods (two or more years, for instance, of the disease) we sometimes see well-margined patches of large size, with definite and slightly raised and inflamed edges, which spread in the horse-shoe pattern. These are always definitely syphilitic, but little influenced by local causes, and readily amenable to treatment. Unless treated they last for years, and gradually pass into the type just described as distinctly tertiary. They sometimes affect one palm only, and sometimes both. Although, as I have said, they are generally amenable to treatment, they sometimes resist it in an extraordinary manner, and yet yield finally in a way which proves their specific nature. I once treated in the usual manner a man who suffered severely from this disease in one palm. He had been sent to me by Dr. Falconer, of Weymouth. Not getting well so fast as he liked, he put himself into the hands of a quack, who rubbed in mercury so freely that the man almost died of salivation. He was for some weeks in bed under Dr. Falconer's care, and lost most of his teeth. His psoriasis palmaris was, however, absolutely and permanently cured. In another case, a commercial traveller, in excellent health, was under my treatment for eighteen months at least, and took mercury internally, and used inunction very freely indeed, without curing a patch of psoriasis in one palm. Finally I prescribed for him an iodoform ointment, under the use of which the patch vanished in a fortnight. The palm became perfectly soft, and though it is now eight or ten years ago, there has never been the slightest sign of relapse. This freedom from proclivity to relapse, when once completely cured, is a very important characteristic of the form which occurs at comparatively early periods. It supplies a strong incentive to perseverance with vigorous treatment, and

to the trial of fresh remedies if success is delayed. In the case mentioned all varieties of mercurial ointments had been used locally for months together before the iodoform was tried. Yet I must admit that I have never in any case since found iodoform to act in any very definite manner for the cure of this disease. As regards the forms of psoriasis which are met with in very late periods, they usually benefit somewhat by treatment, but very seldom get well. They present in this respect a close parallel to the chronic diseases of the tongue which often attend them. A not unimportant parallel may also, I think, be drawn between them and certain very slowly aggressive disorders of the nervous system which occur in the same stage of the disease, and are equally insusceptible of cure. In this diffuse palmar psoriasis, often coincident with diffuse sclerosis of the tongue, we see changes attended at first by erythema, leading to atrophy, distinctly limited to special parts, but steadily aggressive there for many years. They are benefited by specifics, but seldom quite cured, and they are always very difficult to distinguish from similar types of disease not due to specific cause. It is just so in locomotor ataxy after syphilis, which often comes on very insidiously, and often appears to be excited by causes of spinal exhaustion, just as palmar psoriasis is by local pressure (tools, walking sticks, etc.). It happened curiously in the case which I have mentioned, that I had noticed that the pupils were very small. On examination I found that they did not dilate in the least when shaded, but that in accommodation they contracted yet more. The patient had no patellar reflex. He had not experienced any definite pains in the limbs, nor had he lost the power of steadying himself with his eyes shut. I cannot doubt, however, that he is in the early stage of ataxy.

In using palmar psoriasis as a symptom of syphilis

in the tertiary stage we must be very careful. An impression is, I believe, abroad that it almost invariably denotes syphilis. In this I cannot share, for in about half my cases there has been reason to believe that no such taint had ever existed.

Commentary CLXXVIII.

Infection of a wife by a relapsing chancre immediately after marriage; history of the children; ring-worm tongue in inherited syphilis.

The following case presents some unusual features. It is one of an exceedingly small number, not, I think, more than two or three, in which ill results have followed a marriage which I had myself sanctioned. Mr. C., aged twenty-eight, came first under my observation on May 4th, 1875. He had had primary sores twice, two years before and again nine months before. On the first occasion no rash followed, but on the second a rash occurred simultaneously with the sore. It was doubtful whether the second was due to fresh contagion, or was only a relapse. The surgeon who had treated him, a very able man, assured me that it had never been anything more than simply a red excoriation on the glans. He had taken mercury to salivation before I saw him, and on the theory that all was due to the first infection, the symptoms had probably been restrained by the specific. I saw Mr. C. again a year later, in May, 1876. He then reminded me that I had on the first occasion advised him to take pills for a year. Under this treatment he had had such dreadful pains in his head that it had been found necessary to change the mercury for iodide of potassium. Both quinine and mercury made his "terrible headaches" worse, but he was, after a long treatment, finally cured by iodide of

potassium. With my permission, in August, 1876, he married (that is, exactly two years after the supposed second infection, and more than three after the first). He had for some time been apparently quite well. A few days before his marriage some sores appeared in his throat, but it was too late to defer it. His wife conceived almost immediately, and within three months was covered with a syphilitic eruption. Although she never noticed any primary sore on the genitals, it is very probable that she had one, for Mr. C. had a return of the abrasion on his glans immediately after their marriage. Mrs. C. was treated with mercury during her pregnancy, but the disease hung about her for long. (She was not under my care, and I cannot give details.)

The history of his children is, that the first and second were born dead, prematurely, at seven months. His third, born in 1881, had rash and snuffles in infancy, but got quite well under treatment. The fourth, born in January, 1883, had rash and snuffles more severely than the third, but, like it, recovered well under treatment. Both these were boys. I saw these two children again towards the end of 1886. They were then very healthy looking children, and there was nothing about either of them by which I could have recognised any taint. My note states that they were "florid, stout, and to all appearance models of good health." In both, however, the upper incisor teeth were decaying, and the elder of them had the so-called "ringworm tongue."

Mr. C. himself was under my care in 1883, on account of leg-ache, which had troubled him much in walking. There were no other symptoms of ataxy, and I was inclined to suspect that it was due to inheritance of gout. His wife was under my care with an ulcerated gumma behind one knee in the early part of 1884. She, like her husband, complained

much of leg-ache, and had severe pain in the head. occasionally.

It is undoubted that the children in this case were born to a mother who had herself had a severe outbreak of secondary syphilis after her marriage. We must, therefore, as far as they are concerned, ignore the father's more remote taint, and there is nothing very remarkable in the circumstance that four children in succession suffered. If the facts, as stated, may be trusted, a man in whom two years had elapsed since the primary sore, was still capable of infecting his wife. There is, however, the fallacy that he may possibly have received a fresh contamination just before his marriage. If we reject this supposition as improbable, it remains to be mentioned, as possibly explaining the long duration of active taint, that Mr. C. had never taken much mercury. It had always disagreed, and had been soon substituted by the iodide. His chancre had possibly twice recurred after long intervals.

CHAPTER XI.

CASES AND COMMENTARIES IN REFERENCE TO THE
HEREDITARY TRANSMISSION OF SYPHILIS.

Commentary CLXXIX.

Case illustrating the prophylactic value of mercury in reference to offspring, and also proving very definitely the association of interstitial keratitis with inherited taint.

A CASE which came under my observation in 1879 was of considerable interest in reference to the laws of inheritance. A gentleman, who had lost several children, was sent to me in 1875 by Dr. West, with the

suggestion that he should be treated for latent taint. I found that he had been married five years, and that his wife's first conception had ended in a miscarriage, she herself, at the time, having an eruption. The next child was born dead, and the next died at three weeks old. The fourth, a girl (at this time an infant), had been delicate from birth, and had snuffled. The father acknowledged syphilis within two years of marriage, but he had experienced no reminders. I, of course, quite concurred in Dr. West's suggestion that both parents should take a long course of mercury, with the hope of getting rid of the taint. This was done. The next child, a boy, died at six months, but without having shown anything specific, and subsequently two were born which lived, and were apparently wholly free from taint. It will be seen that of those born before the mercurial treatment only one had survived. When this little girl was nearly five years old she began to suffer from inflamed eyes, and her medical attendant, knowing nothing of my previous connection with the case, sent her to me. I found the left cornea in a characteristically ground-glass condition, and in a month later the other eye had become affected also. The child was well grown and florid, but her sunken nose and bulging forehead gave her a very suspicious physiognomy. She had not yet cut her permanent teeth. I believe there are not now many sceptics as to the association between interstitial keratitis and hereditary syphilis, and to any such, cases like this (and I have seen many parallels), in which the family history was known beforehand, and the fact of the child's taint established long before the occurrence of the expected keratitis, are very instructive.

I may also ask attention to the fact that after mercurial treatment the parents reared healthy children, whilst all had suffered previously; but there is the

PLATE VII.

DIFFERENT STAGES OF SYPHILITIC KERATITIS (INHERITED).

Fig. 1 shows the whole cornea in a state of haze, and a vascular fringe, or "salmon-patch," passing upon it from its upper margin. There is some sclerotic congestion, but it is to be noted that conjunctival congestion is almost wholly absent.

Fig. 2 shows an almost similar condition to No. 1, with the differences that the ground-glass condition of the cornea is more marked, and the vascular patches are much less.

Fig. 3 shows a rare condition, in which the vascular patches have spread over the whole cornea, and made it of an almost uniform plum colour. In the centre is an elliptical patch of grey infiltration. It is to be noted as a very remarkable feature (although common in this disease) that neither conjunctiva nor sclerotic is materially congested.

Fig. 4.--The cornea in a case in which it has been left permanently opaque. It will be seen that the opacity is interstitial and not that of common leucôma. The two eyes were alike. This result is fortunately very exceptional.

Note.—Figs. 1 and 2 in this Plate are copied from the illustrations given in Froriep's Treatise "De Corneitide Scrofulosa." At the time this treatise was published (1830) the connection of the disease with syphilis was not even suspected.



FIG. 1.



Fig. 2.



Fig. 3.



Fig. 4.

obvious fallacy here that the mere lapse of time may have been sufficient to allow the taint to die out.

Commentary CLXXX.

The curability of syphilis as regards both parents and offspring.

The following case is of some value in proof of the curability of syphilis, both as regards the patients themselves and their offspring. I believe that it is only an instance of what is an every-day occurrence.

Dr. and Mrs. N. both had syphilis soon after marriage. The wife suffered with especial severity. They were both treated with mercury for long periods. Cohabitation was continued. Two premature and dead births followed each other in succession. Next two living children were produced, neither of whom ever showed a symptom. The eldest of these was conceived three years after the disease in his parents, and at the date of my note was two and a half years old. He was then a strong child, and in perfect health. Both parents at this date seemed quite well, and neither of them had required any treatment for five years. Thus both would appear to have got quite rid of the disease within two years of its acquisition, to the extent at any rate that they have become capable respectively of begetting and conceiving healthy offspring. I am well aware that this must not be held to imply certainty that they will remain wholly free in the future.

Commentary CLXXXI.

Case in which the first-born child of a mother who had suffered from syphilis escaped any evidence of taint in infancy, whilst the second suffered severely.

I saw, many years ago, with Mr. Vincent Cooper, of Bow, a very interesting case of heredito-syphilis.

Our patient was a male infant, aged three months, born quite healthy looking, but now covered with a syphilitic rash and much emaciated. Both parents appeared healthy. They had been married nearly three years. Before marriage the mother had contracted a sore on her lip from kissing a brother who had syphilis. This sore was recognised by her medical attendants as a chancre, it was followed by a rash, and she was treated for syphilis by mercury. The gentleman now her husband was then engaged to her. He was made acquainted with the facts, but declined to allow the occurrence to affect their relations. About a year after the syphilis they were married, the young lady having then been, for six months, apparently in perfect health. A year after marriage, the first child, a girl, was born. She remained quite free from symptoms, and seemingly in excellent health, until at six months she was carried off by a short attack of whooping cough. Mr. Cooper confirmed to me the parents' statement that this child never showed any indications of syphilitic taint. During the whole of her married life the mother had remained free from symptoms, and she appeared to be quite well at the time that I was consulted about her second child.

The father had never had syphilis.

We seem to have here a case in proof that a mother, in whom the taint has been wholly latent for three years, may bear a child destined to suffer severely in the usual manner, and at the usual age; and that a first-born child may escape (so far as infancy is concerned) the effects of a maternal taint, which a younger one may yet suffer severely from.

It is a matter for interesting speculation whether the sex of the infant has any influence on its liability to suffer. The one which escaped was a girl, the one who suffered was a boy, the taint being a maternal

one only. I call attention to this fact, but without suggesting that it has any importance. I have in vain attempted to find any law or rule in reference to difference of severity of incidence of inherited syphilis in the two sexes. That a majority of those who suffer from iritis in infancy, and from keratitis when adolescent, are girls, seems, so far as present statistics go, to be established.

Commentary CLXXXII.

Inherited syphilis in two sisters : the younger one suffering the most severely.

In 1861 a man brought to Moorfields two girls, his daughters, both of whom suffered from interstitial keratitis. In both the inflammation of the corneæ was just beginning, yet the elder was three years (æ. 12) older than her sister (æ. 9). The younger, in whom it was beginning earlier, appeared to suffer more severely throughout. Her physiognomy and teeth were characteristic, whilst her elder sister showed very slight peculiarities of physiognomy, and had perfect teeth.

I cite this as a very important item of evidence in proof of the unequal severity of inherited syphilis, quite independently of the period which has elapsed since the disease in the parents. It was unquestionable that both sisters had suffered, yet the elder one had apparently almost escaped the symptoms common in the infantile period. The case is further of interest, as showing how almost wholly latent the taint may be up to the time of the outbreak of keratitis. Had the sisters been in reversed positions, that is, had the younger one suffered as slightly as did the elder, the case would have seemed very strong in support of the common creed that the taint is minimised by time.

Commentary CLXXXIII.*On inheritance from both parents.*

Inheritance from both parents instead of from one alone probably makes no greater difference to the child than does vaccination on both arms, instead of one only. It renders transmission more certain, but in no material degree intensifies the disease transmitted.

Scarlet fever is the same malady, when contracted by simultaneous infection from two persons as when from one only, and it is not probable that any different law obtains in the case of syphilis. It is impossible to intensify or to alter it. It is a specific disease, and must necessarily be complete, and cannot possibly be more than so. Contagion from one source is sufficient for the full result; contagion from more than one brings with it no aggravation. It is not improbably as absurd to think that the disease will be more severe when the transmission is from both parents, as to suppose that the acquired disease is worse when there are two chancres. In saying this I am not forgetful that multiplicity on the part of a primary lesion, as, for example, in vaccination, does possibly to some very slight extent heighten the disease.

Commentary CLXXXIV.

Case illustrating the apparent escape of children when both parents had had syphilis, and the mother continued to show symptoms.

A woman came to the Hospital for Skin Diseases in November, 1878. She came on her own account, with extensive syphilitic ulcerations on the forehead and scars on the arm. She said that she had had what she considered to be "the disease" from her husband five years ago, and had suffered, on

and off, almost ever since. Yet she had during the last four years borne three children, all of whom were living, and according to her belief had been free from symptoms. The youngest, six months old, she brought with her. It looked quite healthy, and had no symptoms excepting very doubtful snuffles. I asked her if her husband had shown any symptoms of the disease. "He denied having had it, and made excuses," she said, "but I was not such a fool as to believe him." We may, however, take it as certain that the husband had never suffered conspicuously, and had, during the period referred to, been apparently in good health. As to the children, it may easily be the fact that their escape is apparent, and not real, and in later life one or more of them may suffer. The case, however, retains value as proof that a mother suffering continuously and severely may bear viable and apparently healthy children. The poor woman's suspicions were alive, and had any of the three children shown anything, she would certainly have remarked and remembered it.

Commentary CLXXXV.

Syphilis derived by a succession of children from the mother ; some remarkable facts.

A man, Mr. H., was engaged to be married to a young woman to whom he was deeply attached. Before the event, however, she confided to him the fact that she had been seduced. He, notwithstanding, persisted with the engagement, and it proved, I believe, in spite of the drawbacks which I have to record, a happy marriage. His wife was to all appearance quite well at the time of marriage, but only a year had elapsed since she had suffered from syphilis. She remained well through her married life, but she bore child after child which suffered.

One after the other they were brought to me with unmistakable symptoms, and were cured by specifics. On each occasion the father brought the children himself, and was careful that I should not see their mother. He always denied that he had had syphilis, and he never explained, either to me or his family medical adviser, what he knew as to the real source of the taint. I was always surprised to note that although he vehemently denied the suggestion that he had had the disease, yet he was eager that the children should be treated for it. One of the eldest suffered from multiple periostitis, and had an abscess near the elbow and died cachectic. There was one miscarriage, and one child born alive survived only twenty-four hours. With these exceptions, all the children were reared, and at the present time there are seven living.

After I had seen and treated four children in succession, Mr. H. came to me one morning on his own account. He was covered with a syphilitic scaly eruption. On seeking for the chancre I learnt that his first symptom had been a sore throat, and that the sore had been on one side only. He had been for two months under the care of a throat specialist for this sore before any eruption showed itself. He showed me the remains of what, from the history, I could not doubt had been a chancre in the tonsil. He explained it by suggesting that he had poisoned his mouth by starting his infant's feeding-bottle. In the night it appeared that he not infrequently did this, and the plausibility of this suggestion was strengthened by my knowledge that his infant was at the time suffering from a syphilitic mouth. He had no trace of a chancre on his genitals. He now for the first time told me his wife's history.

I saw Mr. H. and his wife and his whole family at their home six years after the event last mentioned.

His wife was now out of health with leucorrhœa and a swollen cervix uteri. Their two or three younger children had shown no symptoms, a curious fact when we remember that their father, previously free, had recently had it. Out of the seven there was not one whom I could have identified, either by physiognomy or teeth, as having suffered from syphilis, although respecting four I knew for certain that they had done so. They would have passed for a fairly healthy group of good-looking children. None of them had had keratitis nor any other of the remote consequences of the disease. It is to be remembered that all had been treated with mercury in infancy. The non-inheritance of the younger ones from their father must also be credited to the efficiency of the treatment in his case.

Commentary CLXXXVI.

When a pregnant woman contracts syphilis during her pregnancy, what is the effect on the fœtus?

The fœtus may manifest all the symptoms of inherited syphilis just as if it had received the virus at the date of conception. It by no means follows, however, from the acceptance of this statement, that such parallelism is universal. It may be so in some cases, and not in others. Most of the facts in my own personal knowledge, which enable me to make it, concern cases in which the disease was obtained by the mother late in her pregnancy. It may easily be very different in the earlier months, and I should much doubt whether a woman would be likely to go to the end of her period who suffered from constitutional syphilis in its early part. Intra-uterine development would probably take place, and in most cases destroy the life of the fœtus. We may conjecture that it is less likely that latency would occur in a fœtus under such circumstances than when

the germ is contaminated at conception. At any rate, we know for certain that latency until birth is the rule under the latter circumstances, and we do not know it under the former. Our ignorance is, however, simply the result of the paucity of records of cases. The following narrative supplies an item of evidence.

Commentary CLXXXVII.

Severe syphilis in a pregnant mother ; mercurial treatment ; child free from symptoms.

The escape, or apparent escape, of the fœtus under circumstances of great ostensible danger, is sometimes very extraordinary. To those who hold that a mother who contracts syphilis during pregnancy cannot infect her fœtus, the following narrative will appear only according to rule, and will afford a confirmation of their scepticism. To those who think otherwise, it is a somewhat remarkable and exceptional fact.

I saw, some years ago, with an accomplished surgeon from Lincolnshire, a young widow, who was pregnant with her first child. The disease was from her husband, who was just dead. She had a copious eruption and a very bad throat. We gave her mercury in one-grain doses of grey powder. This was in the beginning of June, and she was confined in the end of August. Her child never showed a symptom, and is now, at the age of four, a strong and remarkably fine child. It has never needed treatment. The mother suckled the child for four months, during which time she was taking mercury. Since then she has not needed treatment. I operated on her for piles in October, 1885, and she then had not the slightest indication of remaining syphilis. I saw her child, and found him quite healthy.

In this case the child has been carefully watched

by Mr. S. from the time of its birth, and he declares that it has never shown a single symptom.

It will be observed that neither parent had syphilis at the date of the child's conception. The husband contracted it after marriage whilst abroad, and gave it to his wife when she was in the second month of pregnancy. She had a very severe attack, and was only just losing her rash when the child was born. In explanation of the child's immunity it may be suggested that the fœtus was influenced by the mercury given to the mother both during pregnancy and lactation.

Another hypothesis may be that, after all, the child's escape is apparent only, and not real. Those who inherit sometimes show nothing in infancy. We must wait and see.

Commentary CLXXXVIII.

Tertiary syphilis not transmissible.

The dyscrasia of tertiary syphilis, as such, is probably not transmissible. Many a man, himself the subject of tertiary syphilis, even in a severe form, is the father of healthy children; and many, after the birth of healthy families, become themselves the victims of a taint which had been long latent.

In this fact we have a strong reason for believing that when transmission does take place it is always particulate; always a transference of specific germs. It is not the state of health which syphilis may have produced in a parent which he transmits to his offspring, but the poison itself.

Thus the transmission of syphilis to offspring probably differs *toto cœlo* from that of such diseases as gout and scrofula. In these it is the final diathesis (the tissue tendency) which is transmitted, and not its special cause.

Commentary CLXXXIX.

Syphilis contracted in the second month of pregnancy ; periostitis and neuro-retinitis, with convulsions, etc., in the infant.

As a good illustration of several important points as to the clinical history of syphilis, I may offer the following narrative :

A married medical man contracted a chancre on his finger in November, 1882. His wife was at the time two months pregnant. He did not recognise the nature of his disease until his rash appeared, and part of the latter was on his genitals. In January, finding what was the matter, he desisted from intercourse, but it was too late, and his wife subsequently had sore throat and eruption. She suffered rather severely. Her mercurial treatment began in March, and was continued until her confinement in July. The child was born at full time, apparently healthy, and it presented neither snuffles nor rash at any time. When six weeks old its ankles and wrists swelled, and were very painful on movement. Under mercurial inunction this passed away, and there has never been any bone tenderness since. When three months old a very severe and nearly fatal attack of convulsions occurred, attended by furred tongue and fever. A divergent squint resulted. Iodide of iron was now used, and recovery ensued. At six months, however, another similar fit occurred, again attended by fever, and after it the divergence was substituted by convergence. For some time "it seemed as if the child were almost blind." Under mercurial inunction and iodide of iron, recovery again ensued, and the sight was regained ; the squint, however, remained permanent. At the age of two (when I first saw the child), she was fairly well developed, could walk

and talk, and showed nothing peculiar in physiognomy, but had a strongly convergent squint of right eye. She appeared to see fairly with both eyes, but there were evidences of past neuro-retinitis in both. Both as regards physical and mental development, she was probably below her age.

To go back to the history of the parents. The mother, who took mercury during the latter half of her pregnancy, and for two months afterwards, but not very regularly, recovered so well, that when I saw her two years later she appeared to be in excellent health, and had never had any reminder. The father, who had a much longer course, extending over more than a year, has remained ever since liable to a dry serpiginous eczema on the scrotum, which is easily cured by mercury, whether given internally or applied, as white precipitate, externally. He is in good health, and in all other respects free from reminders.

Thus we have a case in which an infant, whose mother had taken mercury during the last half of pregnancy (and in sufficient doses to procure in herself a good cure), presented early indications of periosteal syphilis, and subsequently of implication of the nervous system.

Commentary CXC.

History of syphilis in both parents six years before birth of the patient; slight infantile symptoms; acquired syphilis at the age of twenty; constitutional sequelæ; interstitial keratitis; teeth and physiognomy presenting no peculiarities.

In the following case an attack of interstitial keratitis occurred to a young man who certainly inherited syphilis, and who had also passed through an attack of acquired disease. It is impossible to say with certainty to which of the infections the keratitis

was due. It is, however, most probable that it was in connection with the inherited taint. The case is conclusive in proof that the subject of inherited taint may yet acquire the disease. It is very possible that the acquired taint modified the inherited one.

E. M. H., aged twenty-one, was admitted under my care on July 6, 1863. His right cornea was inflamed, but he stated that it had followed an injury from lime a fortnight before. The cornea was diffusely opaque, and the eye very irritable. I prescribed, at first, tonics internally and opiate fomentations, being misled by his statement that he had had lime in it. On the 20th I recognised iritis in slight degree, and the dotted condition of the cornea, taken with the slight inflammation of the iris, presented a condition similar to what used to be called "aquo-capsulitis." Iodide of potassium was now prescribed. In the middle of August the left cornea began to inflame. At this time the right cornea was so opaque that it was impossible to inspect the iris, and it presented exactly the conditions of syphilitic keratitis. His physiognomy did not suggest hereditary syphilis. It is true his skin was pale and of bad colour, but his nose was narrow and with a very high bridge, and his teeth were perfect in form, size, and colour. In making inquiries as to his history, he mentioned that his mother had suffered in her eyes, and, thinking that some light might perhaps be obtained in respect to his own diathesis, I requested that she should attend.

His mother's history.—On August 27, Mrs. M. attended with her son, and brought with her one of Mr. Bowman's out-patient letters. From notes on the latter I found that iridectomy for syncelhiæ and relapsing iritis had been performed six years ago. She had obtained great benefit from the operation. There were still bands of syncelhiæ in the lower part of the pupil. The original attack of iritis had

occurred twenty-five years ago. Mrs. M. told me without reserve the whole history of her troubles. Her husband had been a most dissolute man, had frequently suffered from venereal diseases himself, and had several times communicated sores to her. Her worst attack was when the iritis occurred, at which time she had a very free rash. Several of her children had died of "the disease." Our patient was one of her younger children, and was born six or seven years subsequent to his parent's contamination. The three infants preceding him had all died. In infancy he suffered from a rash, and was treated by Dr. Rees, who referred it to venereal taint. After infancy he had fair health, until about the age of fifteen, when his left eye inflamed.

History of the acquired disease.—He had been under my care for gonorrhœa four years before, and since then had been much exposed to risk. A year previously he appeared to have had true syphilis. He did not recollect a chancre, but said that he had a copious scaly rash and a bad sore throat. These lasted for three months or more. The surgeon whom he attended told him it was syphilis, and gave him mercury to salivation. He still had the remains of a papular rash on his chest when I saw him.

We may note, as a very interesting point, that this attack of interstitial keratitis occurred about ten months after the outbreak of acquired disease, but we must also bear in mind that there was a history of inflammation in one eye several years before.

Commentary CXCI.

Is inherited syphilis protective against the subsequent acquisition of the disease?

The opinion has been expressed that syphilis becomes milder in communities in which it has long been present. It is reputed to have become in Portugal

a much enfeebled malady from this cause. An English physician practising there has expressed his belief that owing to habitual neglect of efficient treatment the whole community has become influenced. We know that this law of transmitted, partial, immunity prevails in the other specific fevers. If small-pox be introduced to a new soil, it is far more severe and more fatal than when it occurs in a community which, through many generations, has been accustomed to its prevalence ; so also with measles and scarlet fever. There is an excellent chapter on this division of our subject in Mr. Lee's "Lectures on Syphilis."

I believe I may claim for myself what of credit belongs to having been the first to record instances in which the subjects of inherited syphilis in a severe form subsequently became affected by acquired venereal sores. This I did by publishing in the *British Medical Journal* for September 21, 1861, several cases in which the subjects of inherited syphilis contracted primary sores. In some of these no secondary symptoms followed. This negative fact, however, proves nothing, since we frequently, in those who have not inherited any taint, witness the occurrence of non-infecting chancres. It would require the collection of an extensive series of cases, much larger than that which I was able to get together, to justify in any degree the creed that the inherited taint is a protection against the acquisition of the disease. That it is not wholly protective is made certain by the case just given. I am not aware of any similar facts published by others.

Some of the cases referred to I may here quote.

Case 1.—Heredito-syphilis with clear history ; gonorrhœa and superficial sores ; no secondary symptoms.

Richard D., a lad of nineteen, had been under my

observation for several years on account of nodes, keratitis, etc., the results of inherited taint. His mother had also been under treatment for tertiary symptoms, and gave me a clear history. The boy had suffered severely in infancy. At length (1858) he one day applied at the hospital on account of gonorrhœa and superficial sores, with much swelling of the prepuce. None of the sores became indurated. He was treated solely by local remedies, and no secondary symptoms occurred. He was under my care at the Metropolitan Free Hospital. I have frequently seen him during the last few years, and am certain that he has not had any constitutional symptoms.

Case 2.—Heredito-syphilis; acquired disease; several non-indurated sores with suppurated bubo; no constitutional symptoms.

Edwin W., aged twenty, came under my care at the London Hospital in 1859, on account of primary sores. There was a large ulcer which had destroyed the frænum, and several small circular ones on the surface of the glans, and on the roll of the prepuce close to the corona. None of the sores were indurated. In the right groin was an ulcerated bubo with livid, undermined edges. He had had the sores for nearly two months, and had taken mercury. There were no constitutional symptoms. The interest of his case belonged to the circumstance that he was evidently the subject of inherited taint in a severe form. He had suffered from interstitial keratitis in both eyes, and both corneæ were still hazy. The right iris was adherent at its pupillary edge, and this eye had, he said, been defective from infancy. The keratitis occurred when he was ten years old. His teeth presented the typical malformation; his nose was flattened, and large radiating cicatrices extended from the angles of his mouth. He stated that he was the oldest living

in his family. A sister, who was older, died of consumption at the age of twenty-one; she had always been ailing, and had suffered for long from "bad eyes." A brother, a year younger than himself, is now the subject of "bad eyes," and under care at Moorfields. I had this patient under observation for several weeks, during which he got nearly well of the local disease. No constitutional symptoms occurred.

Case 3.—Heredito-syphilitic diathesis well marked; primary sores acquired at adult age; mercurial treatment; no constitutional symptoms.

In this case the patient, besides being obviously the subject of inherited syphilis, had also suffered from acquired sores. It did not appear, however, that he had had any constitutional symptoms from the latter; and the history made it clear that the attacks of inflammation of the eyes were dependent upon the inherited taint, rather than the acquired one. As he was not under my care during the primary disease, I am unable to state the exact nature of the sore.

Commentary CXCH.

Cases in which the subjects of inherited taint suffered severely from acquired disease; phagedæna of the chancre, and rupial sores on the skin.

*Case 1.—*A young man of severely deformed visage, and with typical teeth, came to me at the Metropolitan Free Hospital on account of acquired syphilis. He had suffered from keratitis some years before. The chancre had existed for two months, and it was probable that he had taken mercury. The sore had now become deeply inflamed and ulcerated, almost phagedænic. On the skin, in various parts, were scattered sores of ecthymatous character, almost rupial. These were not numerous. I prescribed iodide of

potassium, but soon afterwards lost sight of the patient, and cannot report the result. The sore when I saw it was so much inflamed that it was difficult to say whether or not it had been indurated in the first instance.

Case 2.—J. W., aged twenty-two, was of a physiognomy so marked that but a glance was required to identify his diathesis. His teeth were notched, and he had had keratitis. He was admitted with deep ulcers on various parts, two of them extending down to bone, one in the clavicle, and one over the spine of the right scapula. Some of the ulcers were like those of ecthyma. At first sight we attributed these to his inherited taint; but he put us right by saying that they had followed “the disease,” which, it appeared, he had contracted about three months before.

Under treatment, by iodides chiefly, he soon recovered, but a portion of bone was exfoliated from the scapula.

These two cases, in addition to the one given above, clearly prove that not only is it possible for the subjects of inherited taint to contract the disease anew, but also that they may suffer with unusual severity. In all three the eruption was a form of rupia. It is even possible that inheritance modified and intensified the action of the acquired disease.

Commentary CXCIH.

Inherited syphilis in a seven months infant; no treatment; marasmus in an extreme degree; death; no visceral disease whatever.

In August, 1862, I made a post-mortem examination of the body of a syphilitic male infant, aged three months. He had been admitted under my care at the London Hospital only five days before his death, and I then pointed the case out to the students as, perhaps,

the most extreme example of emaciation I had ever seen. He was covered over the nates, etc., with syphilitic blotches, and suffered also from snuffles and stomatitis. When born he was stated to have been fairly healthy, considering that he was a seven months child. He was illegitimate, and had been put out to a wet nurse.

At the autopsy I carefully inspected all the thoracic and abdominal viscera, but without discovering the slightest trace of disease in any one of them. His thymus was small, and of normal appearances. There seemed good reason to think that the extreme marasmus and the fatal event were a good deal connected with his premature birth. He had not until I saw him been treated for syphilis.

Commentary CXCIV.

Can syphilis be transmitted to the third generation?

In seeking a reply to this important question, it is absolutely necessary that we should keep closely to the facts at our disposal. Speculations, without positive facts to build on, are worse than useless. So far as I am aware, no facts have been recorded in reference to the matter since those which I myself published in 1866. Some of these I now reprint. Until lately, indeed, we did not possess the means of recognising inherited syphilis in the adult, and we were, therefore, unable to assert of any given parent that he or she was the subject of this form of taint.

A fact as to the third generation of syphilitic parentage.

Mrs. K. brought her child to me at the Metropolitan Free Hospital, on Friday, February 23rd, 1865. The child, a girl of five years old, was of dark complexion and well-formed features; she was florid

and rather handsome. Her ailment was chronic synovitis of the left knee joint; the knee being rather swollen, but not specially painful. She had no other diseases. Her eyes were perfect, as also was her hearing.

Mrs. K. herself attracted my attention at first glance by her very marked syphilitic physiognomy. Her corneæ were clouded by bygone keratitis. The bridge of her nose was sunken, and her complexion was pale and earthy. I asked her to show her teeth, and they proved to be most typically malformed. She was a tall woman of dark complexion. She told me that she had but the one child above mentioned, and that she had never had any others, nor had she had miscarriages. She reported that her child, excepting as to her knee, had never been ill in any way. It is to be admitted that painless synovitis in children is often a symptom of syphilis. I am sorry that I cannot add any further notes as to this child, and it must be held doubtful whether she was or not the subject of taint.

Inherited syphilis recognised in a brother and sister in adult life; brother the father of two healthy children.

Thomas C., a butcher, aged twenty-three, came to my house on July 22nd, 1862, because I had asked his sister to send him for inspection. His sister was attending me at the Ophthalmic Hospital for keratitis and deafness. He was himself the very type of the heredito-syphilitic physiognomy; very pale and flabby, teeth typical, scars at corner of mouth, both corneæ slightly hazy, and sight very imperfect, right pupil almost closed by adhesions. He was about twelve when the eyes inflamed. Only he and his sister were living (ten had been born).

His father was living, aged fifty-three; his mother died "of dropsy," aged forty. He said that he had

not had a day's illness for five years. He had married three years previously, and had now two children, "both of them as healthy as possible." He had never had any form of acquired venereal disease.

In this instance the father had himself suffered most severely from inherited taint. It must be observed that we have only his own statement as to the health of his offspring. I did not see them myself. That personal inspection is necessary, whenever it can be had, is made clear by the following case :

Case in which a mother was the subject of inherited syphilis, and her first child suffered from infantile symptoms.

Mrs. W. came under my treatment for syphilitic keratitis. She was a florid young woman, aged twenty-one, who had been married one year, and was now nursing her first child. Although her aspect was florid, and she looked fairly healthy, yet she presented, in addition to the keratitis, unmistakable evidences of inherited taint. Her teeth were notched, there were scars at the angles of the mouth, and her forehead was protuberant.

I inquired as to the health of her infant, and was assured that it was perfect. At my request she brought it with her at her next visit. I found it plump and well grown ; but its nostrils were obstructed, and its buttocks were covered with copper-tinted scaly patches of the most unmistakable character. These symptoms disappeared subsequently under mercurial treatment.

Here, then, we appear to have an instance of a mother, who was the subject of inherited syphilis, transmitting a taint to her offspring, and that offspring showing the usual conditions of infantile disease. No such fact has, I believe, been as yet recorded in the annals of medicine, and it ought to be received with

incredulity. Might not the taint from which the child suffered be the consequence of acquired disease in one of the parents? As regards the mother, I can give no evidence other than that there was no obvious reason for suspicion, and that she had no symptoms of acquired disease.

As regards her husband, I made the most careful investigation. He was a commercial traveller, and had been under my care on account of sycosis. He had previously been under the treatment of Mr. Erasmus Wilson and Mr. Startin, neither of whom had suggested that his eruption was syphilitic. Excepting the eruption, which was sycosis of the most characteristic form, he was free from symptoms. He gave me an apparently candid account of his sexual conduct prior to marriage. It had not been all that could have been wished, but he did not know that he had ever had any form of venereal disease. He was most anxious to be cured of his sycosis, and would, I think, have confessed anything which he thought likely to assist in its treatment. There must remain, however, much doubt as to his statements.

This case seems, then, as far as I can sift it, to somewhat favour the belief that a mother, herself the subject of inherited taint, but in a latent condition, may transmit that taint in so active a form that her first-born shall show unmistakable symptoms in infancy. It is most important to note that the symptoms shown by the child were exactly like what are most common in the offspring of those who have only shortly before suffered from acquired disease, *i.e.* coppery blotches and snuffles.

Again, I must repeat that the single fact which I have now recorded must be received with great scepticism. When a series of similar ones can be produced, it will be quite time enough to admit the truth of the conclusion to which it seems to point. It is

many years since it came under my notice, and no other cases have since occurred.

Case in which a woman, herself the subject of inherited syphilis, was the mother of healthy children.

Mrs. C., a woman aged thirty-seven, was sent to me by my colleague, Mr. Streatfeild, as being an interesting example of the results of inherited syphilis. Her aspect was characteristic; her nose was sunken, and her teeth were notched. She was under treatment on account of corneal opacities, which had been left by syphilitic keratitis, from which she had suffered at the age of fourteen. This woman informed me that she had three healthy children, and that none of them had suffered in infancy. Her eldest, aged about ten, was with her, and had well-formed teeth, but was pallid, and with some psoriasis on the face. As regards the other children, I have but their mother's statement. No opportunity occurred for seeing them.

Heredito-syphilis in a woman who was the mother of a large family; children not specifically affected, but delicate.

Mrs. F., aged forty-three, came with another patient to the hospital. We could see at a glance that she was the subject of inherited syphilis. Her teeth were characteristic, and her corneæ were hazy from bygone keratitis. She stated that her eyes first inflamed when she was thirteen, and that she attended Mr. Alexander for several years. For nearly a year she was practically blind. Although the corneæ are still extensively hazy to a slight degree, she could see well, and could read the smallest print.

Mrs. F. came under my notice quite accidentally, on account of her son, whom she brought to the hospital. He was well grown, but evidently a delicate lad. The circulation was feeble, the *alæ nasi* were swollen.

He attended on account of granular lids and superficial opacities of the corneæ. He had a perfect set of large teeth, presenting the most marked contrast to his mother's dwarfed ones. He had nothing about him indicative of specific diathesis.

Mrs. F. had had thirteen children, but of these only four were living. Most of those dead died at about six months ; four were still-born ; one lived to ten years. A "decline of the bowels" was alleged as the chief cause of their deaths.

Of the four living, a girl, aged twenty-one, was in a situation : "very tall and very delicate ;" eyes not inflamed. Our patient was the second living. The third was a girl aged thirteen, who was reported to be healthy. The fourth was a girl aged five, also said to be healthy, but who had had "abscesses in the ears."

Mrs. F.'s husband was dead ; he died "in decline," at the age of forty-eight. It is not improbable that the children inherited a tendency to the tubercular diathesis from their father. At any rate, we must keep this in mind in speculating on the possibility that their "strumous" symptoms were in remote connection with their maternal grandparents' syphilis.

Case in which a woman, the subject of inherited taint, was the mother of children who did not present specific symptoms.

Mrs. P., aged twenty-six, came under treatment for syphilitic keratitis. Her eyes had first inflamed about nine months before. The left cornea was still extensively involved ; the right was clearing. Her teeth and physiognomy were fairly well marked.

Mrs. P. had been married seven years, and was the mother of three children. Of these the oldest was now six years of age, and in good health. The second died, at the age of nine months, of consumption. The third, an infant six weeks old, seemed quite

healthy when seen. Its mother reported that when a fortnight old it had a red rash which lasted a week. There did not appear the slightest reason for believing that this rash was specific. None of the children appeared to have had suspicious symptoms.

Inherited syphilis productive of severe bone disease, protracted to a late period of life; the patient the mother of a healthy child whilst herself suffering severely.

Mrs. H., aged forty, was sent to me by Mr. B., on June 13th, 1865. She came to me chiefly because amputation had been strongly advised on account of a large ulcer in front of her left leg. She was a very cachectic woman, with a large scar in the middle of her forehead, sunken bridge of nose, scars on the face and neck, and notched upper incisor teeth. Both corneæ were hazy from an attack of keratitis in early life. Her left leg was scarred all over from ankle to above the knee by the cicatrices of serpiginous ulceration, and in front of the tibia was a large sore, most unhealthy looking, and fœtid. In the middle of this sore was a mass of sprouting granulations, which looked very suspicious of cancer, but were less indurated than is usual. Still the whole aspect of the ulcer was such that I dare not form a positive opinion as to whether it was syphilis only, or cancer attacking a syphilitic sore. Mrs. H. said that her leg had been ulcerated for many years, but that latterly it had got much worse. There could not be the slightest doubt that she was the subject of inherited syphilitic taint in its most severe form.

The following facts as to her family history are important, and of great interest. She was the eldest living of her parents' family, but her mother had four born before herself, two dead births, and two which died in infancy "with breaking out on the skin."

Mrs. H. had been told by her mother that when an infant she suffered severely from "breaking out on the skin." Both her father and mother appeared to be in excellent health, and both lived to a good age. Mrs. H. has a younger brother and a younger sister now living, both of them healthy, and neither of whom has ever suffered from eye disease. The sister has been married some years, but has never conceived. Mrs. H. is herself now a widow, and has one living child, aged six. This one, a girl, is the only one she ever bore; she has always enjoyed health, and in infancy did not suffer from rash. I had this girl brought to me for inspection. She is a pretty child, of good features, and apparently in excellent health.

Commentary CXCv.

On the comparative rarity of diseases of the nervous system in inherited syphilis.

In my paper introductory to the Discussion on Syphilis, at the Pathological Society, in 1876, I mentioned amongst the features of difference between acquired and inherited syphilis, that diseases of the nervous system were rare in the latter. This subject has, since then, received much attention. Dr. Hughlings Jackson,* as was fitting, led the way in a valuable paper read before the St. Andrew's Undergraduates Association, in 1868, in which he recorded examples of epilepsy, hemiplegia, idiocy, and other affections occurring in the subjects of inherited taint. Dr. Barlow also published cases, and proved to us that disease of the arteries of the brain from syphilis might occur even in young children.

* See cases of "Disease of the Nervous System in Patients, the subjects of Inherited Syphilis," Trans. St. And. Med. Grad. Assoc., vol. i, 1868. "Nervous Symptoms in Cases of Congenital Syphilis," *Journal of Mental Science*, January, 1875.

The zealous investigation of observers such as those whom I have mentioned, and many others, have, however, not resulted in showing that any large number of cases of central brain disease occur in this association. Almost all the variety of affections which we see in connection with acquired syphilis, may be met with occasionally in those who have inherited it, and in association with similar lesions. We may have meningitis, neuritis, and diseases of vessels with all their varieties of consequence, but they are far more rare than in the subjects of acquired disease. Nor are we justified in all the examples of such maladies as epilepsy and chorea, when we meet with them in those who are unquestionably hereditarily syphilitic, in believing that they are necessarily in any kind of casual relation with that taint. I have Dr. Hughlings Jackson's authority in this matter. He tells me that under such circumstances he has repeatedly met with these maladies presenting no features of difference from their non-specific prototypes, and curable by the ordinary measures. Respecting epilepsy, it is, he thinks, only when it assumes the unilateral character (Jacksonian epilepsy), and is therefore presumably due to a local and cortical lesion, that we are justified in suspecting that it may be due to syphilitic changes.

The large group of nervous affections attended by neuritis and sclerosis which we encounter in the late stages of tertiary syphilis of the acquired form appears to be scarcely represented in the subjects of inherited disease. I do not know of any case of locomotor ataxy which has been recorded as occurring in such association. I have never myself seen one, and I have met with exceedingly few of those paralyses of single ocular nerves which are so common in acquired disease. I have seen one example of ophthalmoplegia externa (indeed, possibly two), but of the more generalised

disease not a single one. It may be plausibly objected, that the number of the subjects of inherited taint who survive to adult life is far smaller than that of those who have passed through the acquired disease ; and also that we but rarely trace them up to that period of life at which ataxy usually occurs. These suggestions may be adequate to a certain extent, but do not, I think, explain the whole. I cannot but believe that it remains a very remarkable fact that inherited syphilis does not appear to damage the tissues, and to leave them permanently vulnerable, in the way that the acquired disease so frequently does. Diseases of the secondary class occur during a much more protracted period ; but, when they have passed away, the patients remain, as a rule, free from any tendency to other maladies. In a word, true tertiaries, that is, non-symmetrical and serpiginous affections, are rare in congenital syphilis. Not only do we seldom encounter disorders of the nervous system, but palmar psoriasis, chronic affections of the tongue, sarcocele and gummata of the viscera, are alike rare. Excepting in the infantile period, congenital syphilis rarely shortens life. It does not in any special manner predispose to anything.

Commentary CXCVI.

Syphilis transmitted after a long interval, and after much treatment.

One of the most severe cases of congenital syphilis which I have seen for some years occurred in a child whom I saw in 1884, with Mr. G. M. The infant began to suffer at a month old, became covered with eruption, had snuffles, and became of waxy pallor ; indeed, at one time a fatal event was feared. The mother of this infant had, under the advice of a distinguished obstetric physician, been taking mercury

during almost the whole of her pregnancy. The dose was, however, in my opinion, quite inefficient, having been only half a drachm of the solution of the bichloride, that is, $\frac{1}{32}$ nd of a grain. The mother had been in perfect health all the time, and had felt no influence from the trusted remedy. It is, I think, very exceptional for any dose less than two drachms, that is, the $\frac{1}{8}$ th of a grain, to cause ptyalism, or any other definite symptom of mercurial influence. Be that as it may, the infant in this instance did not appear to have been a gainer by the treatment.

The facts of this case were also of other interest, for it was six years since the husband had suffered, and his symptoms had been vague and doubtful. He had been well treated at Aix-la-Chapelle, and for four years past had been absolutely free from symptoms. He married about two years and a half after his syphilis, and when he had been a year and a half well. Yet it seemed probable, from what his wife said, that she contracted syphilis almost immediately after marriage. She became pregnant within a month, and a month or so later "had a red rash all over her, and a bad sore throat." About this I had only her own statement, but it was quite definite. The symptoms were allowed to pass without treatment, and her pregnancy ended in a dead birth. At this time the mother had quite recovered, and both she and her husband continued to enjoy excellent health. A second pregnancy ended, however, as the first had done, in a premature and dead birth. It was in consequence of these events that the mercurial course to which I have referred was given. There is, of course, in this narrative, as in most that illustrate exceptional events in the course of syphilis, a possible fallacy. It is possible that either wife or husband may have contracted syphilis afresh. If we put this suggestion aside as regards the wife, respecting

whom I believe there was not the slightest reason to entertain it, we may still be excused for not feeling quite confident as to the husband. We know the uncertainties and temptations of masculine life, and it is possible that he may have had a fresh chancre a little before his marriage, and have affected his wife with a primary sore. Against this suggestion, we have his own positive denial that such was the case, and the fact that he has had, so far as we know, no fresh constitutional symptoms. If no fresh infection has occurred, the narrative appears to show that a man, well treated and apparently well cured, may, after an interval of six years, beget a tainted foetus, which may produce an outbreak of secondary symptoms in its mother. The mother having once suffered, her subsequent children may reasonably be held to have inherited it from her rather than from their father, since the disease was more recent in her. Thus there is nothing exceptional in the severity with which the last child has suffered.

Further, to show the difficulties in the histories of syphilitic patients, I may state that when Mr. R. was sent to Aix he had nothing the matter with him except deafness. I have seen a letter from his surgeon there, who, although he gave him a full mercurial treatment, avowed his doubt as to whether he had ever had syphilis. So that it is clear that the symptoms were in him always slight and vague.

The following case appears to be a close parallel, and is open only to the same fallacies :

Marriage after a four years' period of absolute immunity; local eruption a year after marriage; specific throat in wife during pregnancy; death of infant.

A. B., æt. 23.

1873.—Contracted syphilis in March. Secondary symptoms, and full mercurial treatment.

1874.—Quite well.

1875.—Quite well.

1876.—Quite well.

1877.—Quite well. Tried sulphur baths without result.

1878.—Marriage.

1879.—A tubercular eruption on one scapula. Wife had syphilitic throat, and bore a child which died. Husband and wife got well under treatment.

(See Hill and Cooper, p. 393.)

Commentary CXCVII.

On ulcerated nodes and exfoliation of bone in connection with inherited syphilis.

It is but rarely at the present time that we see cases of ulcerated nodes in connection with acquired syphilis. The extensive disease of the cranium with which our forefathers were so familiar, and specimens of which abound in our museums, is now pretty much a matter of history. This result is due chiefly, no doubt, to the introduction of iodide of potassium into practice, and to the widespread knowledge that it is the remedy, *par excellence*, for syphilitic periostitis. In cases of periostitis from inherited syphilis, the diagnosis is unfortunately sometimes at fault, and the iodide is either not given at all or not given with sufficient perseverance. I have of late years seen more cases of exfoliation of bone from the inherited than the acquired disease. It is true that in the periostitis of inherited syphilis the iodide does not act so promptly as in that which is due to acquired taint. But still it remains the remedy in which we must put our confidence. The periostitis of inherited syphilis which leads to suppuration but seldom occurs in infancy. It is a little under or about the age of puberty that there is the most danger that periosteal nodes will become large, break down, and lead to exfoliation. The case which first drew my attention

strongly to the subject of inherited syphilis at adolescent periods, and to the importance of its diagnosis from struma, was one of this kind. The patient was a boy of twelve, the eldest son of a clergyman who had married a widow lady who had had syphilis. This poor boy had his skull laid bare at many places by suppurating nodes, and in the end died of the disease. Quite recently I saw under the care of Mr. Bryant, at Guy's Hospital, a case in which the pulsation of the brain beneath was visible under a large scar in the left parietal region. The history was that a suppurating node had followed a blow on the head, and that a large portion of bone had exfoliated. The patient was a lad of fifteen, whose physiognomy was characteristic and teeth malformed, and whose eyes had suffered very severely indeed from interstitial keratitis. The repair under specific treatment, so far as the bone was concerned, had been most satisfactory.

Commentary CXCVIII.

On the possible connection between syphilis and such diseases as lupus, scrofula, and rickets.

The question as to whether there are any diseases which are remotely connected with inherited taint transmitted through several generations, is one which constantly recurs for debate. The older writers were inclined vaguely to refer all forms of chronic disease of skin or bone to inherited taint, and the public is still very suspicious in the same direction. M. Ricord conjectured that common lupus was remotely due to syphilis, and Sir Erasmus Wilson asked, "is not all struma syphilis?" Quite recently M. Parrot has tried to prove that rickets is but a manifestation of inherited taint, and still more lately Mr. Wheelhouse, of Leeds, has published a clinical

lecture, making the same contention. It is extremely important to arrive at the truth in this matter. My own conviction is that whilst syphilis can very closely imitate lupus, rickets, most of the forms of scrofula, and almost all varieties of skin disease; yet all these separate maladies may and do exist in their typical forms quite independently of it. True rickets is probably due to defective food and insufficient exposure to sun and air. Common lupus is part of the domain of scrofula, and scrofula is due to an inherited peculiarity of organisation closely allied to that which results in tuberculosis, aided by a variety of influences referable to climate, diet, etc., which have been brought to bear upon the individual. I believe it to be a most false supposition that a taint of syphilis is present in most, or even in a very large number of English families. Yet we find the diseases just mentioned developing themselves with great frequency, and amongst all classes. Every one will admit that they are often met with under circumstances which make the question of inherited syphilis highly improbable. To those who are inclined to give credence to the suggestions referred to, I would venture to propose a consideration of the following facts:

1st. That rickets and scrofula are both of them frequently met with in the lower animals, and that they may, indeed, be produced artificially under conditions which make the influence of syphilis an impossible hypothesis.

2nd. That the typical forms of these diseases are constantly met with under conditions which do not give the slightest support to the suggestion of syphilis.

3rd. That amongst those whom we can now so easily recognise as the subjects of inherited taint, we do not frequently encounter such maladies as struma, scrofula, and rickets.

4th. That when lupus is met with in the subjects

of inherited taint, it is of quite different form, and displays quite different tendencies from those which we meet with in the common, or scrofulous, prototype.

5th. That whilst we are now able to recognise (by teeth, physiognomy, etc.,) a large number of those who are the subjects of inherited taint, and that in the case of their marriages we have an opportunity of examining those who, if such a thing were possible, would display the effects of inheritance in the third generation, not a particle of evidence respecting children so born has yet been produced to prove that they are specially liable to either rickets or scrofula.

6th. It may further be reasonably alleged that the diseases in question, when supposed to be of non-syphilitic origin, require quite different methods of treatment to those which we should apply to syphilis.

Were it ever so clearly proved that these maladies were due to inherited taint, we should still have to admit this fact, and should gain nothing so far as our power to cure is concerned. The problem before us is to diagnose the maladies which are amenable to a syphilitic treatment, and, when this is done, we shall probably find that we have classified the maladies tolerably correctly as regards their cause.

Commentary CXCIX.

On certain rare cases of lupus of the pharynx, etc., which very closely resemble syphilis.

It is to be admitted that there are rare cases of lupus of the mouth and throat, which it may be exceedingly difficult to distinguish from syphilis. An example of this was once shown to me by Mr. S. W. Sibley. The patient, a young lady, had her soft palate adherent to the posterior pharynx and her uvula destroyed. She had also some laryngeal impediment,

probably due to cicatrix. Her hard palate was covered by pitted scars. Excepting possibly in the larynx, which, owing to the narrowing of the pharynx, could not be seen, the disease in the mouth was quite arrested, and the scars were sound. Although the scars were exactly like those left by syphilis, yet the evidence seemed to point to struma and lupus. There was a large patch of common lupus on the left cheek, and the right hand had been much damaged by the same disease. The patient showed no signs of syphilis, nor was there any suspicious history. I have seen several other cases in which lupus very closely simulated syphilitic destruction of soft palate, etc. (*See previous commentaries.*)

Commentary CC.

No aggressive tendency in a case of inherited syphilis in which the eyes and ears were much damaged in early life.

I have seen Mrs. H. at intervals now for five-and-twenty years. In the first instance I removed her right eye, which had been lost by syphilitic inflammation. Her other eye was also much damaged, both as regards cornea and choroid. She had a square forehead and typical screw-driver teeth. She was absolutely deaf. At one time it appeared likely that she would become insane, her chief symptom being extreme querulousness. She took formerly iodides and mercurials for long periods.

My chief object in mentioning her case is to note that during the last twenty years there has been no aggressive tendency, either as regards the brain or the damaged eye. Both are exactly as they were. She still sees to read large type, and can do needlework. She is still a great trouble to her husband, from her constant complaints of pain at the pit of the stomach

and inability to be pleased with anything. She is now fifty, but looks much as she did at five-and-thirty. Her only daughter, herself quite free from symptoms of taint, is married and has healthy children.

Commentary CCI.

On the importance of care in the diagnosis of inherited syphilis.

It is necessary to be exceedingly careful in the diagnosis of syphilis in infants, for both the facts stated as history and the appearances assumed by the disease are often very difficult of appreciation. It is not every case of thrush which "goes through the child," and causes sore bottom, which is syphilitic. Nor must we feel too confident respecting erythematous eczema of the nates and genitals, however coppery or ham-like its tint may be. Nothing is easier than to pronounce the diagnosis of syphilis, but the confidence of the practitioner as to his own skill in the appreciation of symptoms does not alter the nature of the disease. I have seen many infants with eruptions on the nates concerning which I never could come to any confident diagnosis. Nor does the method of cure by any means always help us. For syphilitic eruptions will often disappear under simple treatment, and it is needless to say that simple rashes often get well under mercury. In a large majority of cases the diagnosis is easy. My wish is simply to guard against too confident a reliance on individual symptoms or statements.

The following case may serve as an illustration of what has just been said. A lady brought me her infant, aged two months, whose nates and genitals were covered with erythematous eczema. The colour of the patches was exactly that of the lean of ham. There was another large patch at the root of the neck, but none or exceedingly little on the scalp. The

mother stated that the eczema had begun with thrush, using the expressions, "the thrush went through it, as the nurses say, and made it very sore below." "At first I thought that the rash was only part of the thrush." It will be seen that these expressions were exactly such as would suit a case of syphilis. There was, however, a good deal of evidence on the other side. The child had had no snuffles, slept well, and appeared to be in excellent health. The thrush had begun as early as the second week, and appeared to have been very definite. The mother had borne only two children, and I had treated her eldest when nine months old for eczema, and quickly cured it by forbidding the use of milk and sugar, and bathing with a weak tar and lead lotion. This elder child had never suffered from snuffles, and was now in excellent health. That thrush, as a purely cryptogamic disease, may occur in infancy, and may cause great soreness of both the mouth and anus is, I believe, beyond question; and although the expression often used, that "the thrush went through the child and caused soreness of the bowel," may often imply that the child suffered from syphilitic stomatitis and condyloma at the anus, yet I am sure that we shall make great mistakes if we consider such statements as being anything like conclusive.

Commentary CCH.

Twin children of parents both recently and severely syphilitic; death of one, and apparent escape of the other; disease of liver.

Dr. Herman Weber has published an interesting narrative, in which twin children were born to a syphilitic mother. During most of her pregnancy the mother had been under treatment for severe secondary syphilis. She had taken only iodide of potassium. One of them died at the age of eleven weeks, having

suffered most severely from characteristic symptoms; the other remained quite healthy, having never shown any indication of disease whatever. No information is given as to the sex of the children.

In the infant that died the liver was found much enlarged, soft, and fatty. There were also some traces of inflammation of the capsule. The body of the child weighed only six pounds and a half, whilst the liver weighed six ounces and a half. No gummata were found in any of the viscera. Death had been caused by diarrhoea.*

Commentary CCIII.

On the apparent absence of symptoms in cases of inherited syphilis.

The symptoms which usually betray the existence of syphilis in an infant may vary exceedingly in severity. In turn each one of those most common may be absent. There may be no snuffles, no eruption, no wasting, no soreness of the mouth. All authorities will admit that the group is often incomplete, and that whether complete or incomplete, it may be very faintly marked. Some, however, make it an important point to assert that there are no cases in which infantile symptoms are wholly absent. Positive proof that there are such it is exceedingly difficult, if not impossible, to give, for the reply may always be made that the infant was not sufficiently well watched. That there are many in whom, for all practical purposes, infantile symptoms are omitted, I have not the slightest doubt. I have seen many cases of keratitis at puberty or of bone or throat affections of undoubted character, and with the clear history of parental disease, in which nothing whatever had been ever observed in infancy. In some of these the entire absence of the usual marks

* Pathological Transactions, 1867.

of the disease in physiognomy, teeth, etc., quite bore out the parents' statement. I have seen many times a well-developed nose with a narrow bridge, a well-formed forehead, and good complexion in conjunction with keratitis of the most definite kind, and with corroborative facts of the clearest nature. Sometimes the teeth in such cases may be typically malformed, but this is rare. We may probably take it as certain, that when the bridge of the nose remains narrow no material degree of snuffles was ever present, and that if the complexion is good there was no rash on the face. The definiteness of the several marks by which the diathesis is recognised at puberty, is always in ratio with the severity of the disease in infancy.

For practical purposes, then, we must admit that a taint of inherited syphilis may remain latent until at, or even considerably after, the age of puberty, it may manifest itself by a severe attack of interstitial keratitis, by deafness, nodes, lupus (specific), or ulceration of the palate. In saying this I am not speaking solely from observation of the children of the poor, who may be supposed to be sometimes negligent in observation, and apt to forget what has happened to their children. Some of those who illustrated the facts which I now describe were the offspring of most intelligent and observant mothers, and had also been more or less constantly under the notice of the family surgeon. In some instances one or two children in the family had suffered both in infancy and afterwards, whilst another who had shown nothing in childhood yet displayed the usual conditions at adolescent periods.

Commentary CCIV.

On the absence of symptoms at the time of birth.

It is well known that in a majority of cases, perhaps a very large majority indeed, the children of

syphilitic parents, if born alive, are born with all the appearances of perfect health. "A beautiful baby born, as you need wish to see, but began to fall off when a month old," is the constant expression of the disappointed and puzzled mother. Nor has this absolute escape during intra-uterine life anything whatever to do with the severity of the subsequent manifestation, for some of those who suffer most severely are precisely those who looked best at birth. Nor has it probably anything to do with the question as to the nearness of the parental disease, or with that as to whether derived from father or from mother, or both.

The fact that most infants tainted with syphilis live a healthy life so long as they are within the womb, and only begin to show symptoms after some weeks of independent and air-breathing life, leaves us, however, still face to face with another of very different aspect. There can be little doubt that syphilis is a common cause of abortions of premature births and dead births at full time, and that in a few instances it causes the production of children who, born alive, display signs of the disease at the time of birth. This is a part of our subject concerning which I must confess that I have had but little personal experience. Our knowledge concerning it is chiefly derived from surgeons in large family practice, and especially from those holding appointments in lying-in institutions.

As regards proneness to abort in syphilitic mothers, although it is undoubtedly very common, yet it seems quite possible that we have got rather an exaggerated impression. Abortions are very common, quite independently of syphilis; and we do not possess on this point any carefully observed family data with which to institute comparisons. Not only do they happen to women, but they are also abundantly frequent in our domestic animals. On the other hand,

we have every day proof that women may bear large families of tainted children, and never show any tendency to abort. I urge these considerations not with any wish to throw doubt on the current belief, but only to suggest that a little care is desirable before we accept as true the suggestion that all that happens to the offspring of syphilitic mothers is really and directly due to their syphilis.

Above all, I have to protest against the condition known as the macerated foetus being accepted as an indication of syphilis. Nothing is commoner than the macerated lamb, calf, or foal, and all that the maceration proves is that death had preceded expulsion by a considerable time.

Some important statistics on these subjects have been collected by Mervis,* and published in the *Zeitsch. f. Geburtshülfe, etc.*, for 1870. He found in ninety-two examinations of macerated syphilitic foetuses the spleen diseased is seventy-two; the bones affected by osteo-chondritis in sixty-four, the liver diseased in fifty-six, the pancreas in fourteen, the suprarenal bodies in eleven, the lungs in three, and the skin in one. Out of one hundred and fifty-three syphilitic foetuses, he never found any skin affection earlier than the eighth month of intra-uterine life.

Commentary CCV.

On the pemphigus of syphilitic infants.

The pemphigus which affects syphilitic infants is a very peculiar disease, and presents remarkable differences from most other forms of eruption. It often occurs very soon after birth, it may be within a few days, and at a time when the other eruptions are rarely present. It is usually confined to the hands and feet, and when severe it mostly portends death. The cause

* I quote from Hill and Cooper, p. 339.

PLATE VIII.

SYPHILITIC DISEASE OF NAILS.

- Fig. 1.—From the finger of a person in the secondary stage of acquired syphilis. The nail has become thin, opaque, and fibrous, and is broken away in parts.
- Fig. 2.—The fingers of a young child, the subject of inherited syphilis. All the nails are inflamed, excepting that of the thumb. The inflammation begins at the nail root, and has caused an appearance of narrowing at the root, with expansion towards the ends. Thus the nails look as if they had been pinched with forceps near to their roots. The nails of the middle and ring finger are about to be shed.
- Fig. 3.—The opaque and broken nails of a young infant, the subject of inherited syphilis.
- Figs. 4 and 5.—Two fingers from a child, the subject of inherited syphilis. They show the nails dwarfed, fibrous, opaque, and broken.

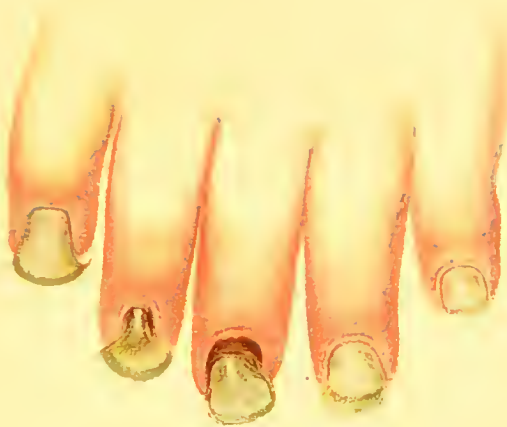


Fig. 2.



Fig. 3.

Fig. 1.

Fig. 4.

Fig. 5.



of death is obscure, for the child does not waste away gradually, but dies within a few days, usually, I think, from convulsions. Diday thought that this kind of pemphigus was due rather to the cachexia caused by syphilis than to syphilis itself. In this opinion I cannot concur, for I have seen the worst forms of pemphigus of the hands in infants who appeared at birth to be well developed. It sometimes affects several children in succession in the same family, leading to the death of all. What the precise cause of death is, and why a bullous eruption on the hands should denote such a perilous state, are questions to which, as yet, we have no reply.

It is not quite the truth that syphilitic pemphigus of young infants is always fatal. Sometimes, indeed, it is a mild disease and quite transitory. If the child improves I believe, indeed, that it always clears away. A married gentleman, who consulted me for the remains of old syphilis, incidentally mentioned that his wife had just been confined. I, of course, inquired as to the infant's health. He said that it now appeared to be thriving, but that "it had suffered from what the doctor had called pemphigus of the hands and feet." I could not learn that the child was under any special treatment, and the symptom was possibly disappearing spontaneously. In January, 1882, I gave a clinical lecture on a case of infantile pemphigus, in which the child survived long enough at any rate to pass into another phase of the disease. This infant was sent to me when nine days' old, its hands, feet, and face being then covered with blebs. It was a well-grown baby, and in all other respects appeared to be in good health. Contrary to what is, I think, usual, none of the bullæ had sanious contents or showed any degree of duskiness at their bases. Many of them were remarkably delicate, and clear, and those on the face were arranged in panicles like herpes. There

was not a single vesicle on the trunk. At the first visit there was nothing known which supported the diagnosis of syphilis, but subsequently I learnt that the infant's mother had suffered from syphilis, and had, two years before, borne a child, which, at eight months old, died of the disease. In the case under our care mercury was given, and the eruption soon ceased. Two months later the child was again brought to me. It was then puny and emaciated, with snuffles and painful swellings over the ends of several bones. The treatment had not been efficiently kept up. I do not know the sequel.

It is to be noted that this syphilitic pemphigus bears little or no resemblance to common *pemphigus diutinus*, excepting in the bullous character of the eruption. The latter is never confined to the hands and face, never affects infants, and almost invariably persists and extends until arsenic is given. It is remarkable, however, that both of them tend to death unless treated. Whether there be any infantile condition not connected with syphilis in which bullæ occur on the hands and feet and are of dangerous import, I am not competent to say. Should any such come under observation they would well merit careful investigation and record.

Commentary CCVI.

On the exfoliation of teeth crowns in infancy, and on pemphigus, with disease of the nails.

In my earliest observations on syphilitic teeth, I recorded, in order to prove that the tooth sacs are often inflamed during the early syphilis of infants, several cases in which gumboils had formed, and the crowns of teeth not yet cut had fallen out. When this happens it is always the upper central incisors which suffer. I possess several specimens of the

crowns of these teeth exfoliated under the circumstances referred to.

In the *Medical Times and Gazette* for Feb. 8th, 1879, I find an interesting case recorded by my friend Mr. R. W. Parker, which illustrates this and some other important points. Mr. Parker's patient came under his care when three weeks old, and in spite of apparently successful mercurial treatment, it died when aged two months. The child appeared healthy at birth, excepting that it had pinched nails. It soon afterwards wasted, had snuffles and mucous patches, and other conditions which are thus described: Temperature in axilla 101° Fahr. Corresponding with the place for the two upper central incisors there were two "gumboils," the size of large peas; that on the left side was the more advanced, and appeared as if about to give way. The rest of the gums were very red and inflamed. (Other "gumboils" developed over the position of the molar teeth during the course of the case.) The mucous membrane of the rest of the mouth was raw-looking. On lancing one of these gumboils (I use the mother's own expression) a milk-tooth dropped out. The hands and feet presented a peculiar aspect; the extremities of the fingers and toes, on the palmar and plantar aspects respectively, presented small bullæ of various sizes, and there were other bullæ scattered about the fingers and toes, and the palms and the soles. In other places there were patches of redness, as though bullæ were about to form. These bullæ appeared quite superficial, and showed no tendency to ulcerate deeply.

The nails of the right index and middle fingers, and of the left middle and ring fingers, were absent, having been raised up and dislodged by bullous inflammation affecting the nail beds. The toe nails were quite normal. Other finger nail beds became affected during the course of the case. There was at first an

exudation of a pale yellowish fluid beneath the nail; this was visible through the nail, which itself appeared unaffected, its surface being smooth and shiny. In other cases the nail seemed to undergo a change in shape rather than in substance, for it became pinched up and "filberted." The exudation beneath the nails gradually became purulent, and the nail, along with the dried-up exudation, shortly shelled off. There were no pemphigus bullæ on any other parts of the body than those mentioned. There was no glandular enlargement.

Commentary CCVII.

On the importance of care in estimating the malformation of the teeth.

I must reiterate that most of the more conspicuous malformations which the teeth present are not syphilitic. Some of these, more especially what are known as craggy teeth, are family peculiarities, and are seen in several generations without implying anything as regards the health or diathesis of their possessor. Others, and a far larger number (pitted teeth, honey-combed teeth, furrowed teeth, discoloured teeth, etc.), are probably caused by attacks of stomatitis occurring in infancy, and are not due to syphilis. Amongst the causes of such stomatitis I cannot feel the least doubt that the influence of mercury stands first. It is not easy to salivate infants, but this by no means implies that they do not when under the influence of mercury suffer from congestion of the gums, such as would be likely to interfere with the normal development of the dental pulps. The resulting defects shown will be in relation with the severity of the mercurialisation, and the age of the child at the time. Teeth, the crowns of which are well calcified before the mercurial course, cannot be damaged by it, nor, it would appear, do those suffer much which are in a very early stage of

development. It is those which have considerably advanced, but are not as yet quite hard, which are most apt to receive taint. The commonest cause of damage to the enamel of the permanent teeth is the use of mercury for the maladies incident to the primary dentition, whether by medical prescription, or in the form of advertised nostrums. The almost constant co-existence of defective enamel formation with lamellar catactes, and of both with the history of convulsions in infancy, affords, I think, a good illustration of this. In almost all such cases we find that the convulsions were treated by calomel, and if in any given case there be proof that mercury was not used, then the teeth will be found undamaged. Without in the least wishing to imply that all, or almost all, the non-syphilitic defects in the development of the teeth are due to mercury, I do yet hold with confidence to the proposition that they almost invariably are due to inflammation of the gums of some kind. It may have been an attack of thrush, or follicular stomatitis, or it may have been from some less definite cause, but there must have been some form of inflammatory congestion of the tooth pulps.

In the case of syphilis we can easily understand that inasmuch as the teeth are part of the dermo-skeleton, they may suffer with the skin and its appendages. Nor is there anything to occasion special surprise to see it affecting symmetrically certain teeth, and leaving the rest almost free. Although, however, we insist on the importance of giving almost exclusive attention to the upper central incisors, yet the rest of the teeth by no means wholly escape. A glance at Plate VI. will convince any one that all the teeth are more or less dwarfed, and many of them show other minor defects.

It must be borne in mind that it is probably but seldom that an opportunity is afforded us of inspecting

teeth which have been influenced by syphilis only. Most subjects of this taint are treated by mercury in infancy, and in most mouths which show syphilitic teeth we encounter also the results of mercurial stomatitis. It is often very difficult to assign correctly to each cause its separate share in the results. As has been already explained, all horizontal defects, all defects which are general and not peculiar to pairs of teeth, are to be considered as non-specific. Mercurial stomatitis often damages the whole set after a fashion of which we see nothing in syphilis. There is, however, one pair of teeth which usually escapes in syphilis and suffers severely from mercury. As the upper central incisors are the test teeth for syphilis, so the first permanent molars are those which especially mark the effects of mercury. These teeth are developed almost simultaneously with the central incisors, and are usually cut a year before them. They are, therefore, likely to suffer from the same influences. If they suffer from syphilis the condition assumed is that of the dome top as described by Mr. Moon, and due to arrest of development of the central denticles. It will be noticed that this arrest of growth of the denticles is exactly what takes place in the case of the central incisors. If the defect be due to mercury it is different ; we then find not merely arrest of growth, but great defect of enamel formation. I have illustrated the appearances assumed by mercurial teeth both in my original paper in the Pathological Society's Transactions, and more recently in my "Clinical Illustrations." My reason for referring to them now is the important relations which they bear to the teeth of syphilis, and the numerous errors in diagnosis to which they give rise. In almost all the illustrations given in the plates last referred to, the conditions due to mercury are seen side by side with those due to syphilis, and often in

the same tooth. It is not improbable that the use of mercury for the cure of infantile syphilis tends to prevent and to minimise the special malformations due to syphilis, but at the same time it adds others of its own, and the two become inextricably mixed.

Commentary CCVIII.

On the importance of inspecting the whole family in cases in which inherited syphilis is suspected.

In all cases in which doubt remains as to the recognition of inherited taint in an individual patient help should be sought first from a careful statement of the family history, and secondly from a personal inspection of all the brothers and sisters. It will often happen that whilst several children show nothing that is conclusive, one member of the family will by the possession of typical teeth, or by the traces of old choroiditis, by his physiognomy, or by an attack of keratitis, place the suspicion beyond doubt. In taking the history of a family for this purpose it is well to proceed methodically. The following case may show the convenience of placing the facts chronologically.

Father had syphilis at the time he married.

Mother had syphilitic eruption six weeks after marriage.

1st year of marriage.—Both parents syphilitic.

2nd year.—A girl born; no special symptoms; living, and well.

3rd year.

4th year.—A girl (prima) which died at birth.

5th year.—A miscarriage at three months.

6th year.

7th year.—A girl (secunda) born which suffered severely.
(See below.)

8th year.

9th year.—A girl which died at birth.

10th year.

11th year.—A girl which died at birth.

12th year.

13th year.

14th year.—Mother the subject of left hemiplegia and right fifth nerve paralysis.

15th year.

16th year.—Secunda was under my care for nodes on tibia and keratitis. Teeth typical.

This narrative proves long persistence of taint and liability to transmit to offspring. It also shows that a child born very near to the primary disease may almost wholly escape, whilst one born several years later may suffer severely.

Commentary CCIX.

On remarkable irregularities in the transmission of syphilis from parent to offspring.

That acquired syphilis develops itself with exceedingly different degrees of severity in different persons all will admit. For the most part, we are obliged to accept this fact without explanation, and to say simply that in itself it proves that individuals differ much in their degree, or kind, of susceptibility to the syphilitic virus; or perhaps we ought to express our meaning in somewhat different words, and say that the tissues of different persons show differing tendencies under the influence of syphilis. For there are facts which show that it is not so much differing susceptibility as different kinds of reaction. Of twenty persons who may show the disease in exceedingly different phases of severity, it may be true that no one differed from the others as regards susceptibility. All contracted the malady with equal ease, all went through the same stages, and all were equally protected by it as regards future attacks; but how different may have been the kind of manifestation. One may have had a sore which lasted, it is true, a month or two, but which gave him no trouble, and which was not followed by anything which could

be recognised as a constitutional phenomenon ; whilst another may have been covered from head to foot with eruption, have lost his hair, had sores in the throat, iritis, and a state of general ill-health which laid him up for months. That the one as truly went through the stages of the syphilitic fever as the other is proved by the almost equal liability to tertiary symptoms, and the equal risk in each of transmission to offspring. Some physicians (Dr. Wilks, I think, for one), to whom we are much indebted for investigations as to severe visceral forms of tertiary syphilis, hold that it is exceptional in these cases to be able to obtain any good history of secondary symptoms. Without adopting this opinion, and whilst believing that the secondary and tertiary symptoms are usually as regards severity in direct rather than in inverse ratio, it is yet of importance for my present purpose to allude to it, and to admit that it is one for which much might be said.

It is not true that this varying severity in the secondary stage is to be explained by reference to the patient's state of health, temperament, age, sex, or diathesis. The most robust are often those to suffer most severely ; and though we may admit that syphilis does acquire certain minor differences in connection with the age, sex, and temperament of its victims, these certainly go but a very little way in explanation of the startling variations in severity to which I have adverted. That the secondary symptoms are usually in ratio with the primary seems probable ; at any rate it is very rare for a patient who has had a chancre of unusual development in respect to size and hardness to escape (excepting as a result of good treatment) a severe outbreak of eruption. In saying this, however, we say little more than that the manner and degree in which a chancre indurates may be taken as a specimen of the manner in which the cell

structures of the individual are likely to behave when brought under the influence of the syphilitic virus. Apart from this we possess no knowledge which will enable us to predict during the first stage of syphilis, or before it, as to any given person whether he is likely to suffer severely from syphilis or not. It would be as easy for a physician to pick out those who will have small-pox badly. Both in the case of the medical exanthems and of syphilis it would appear that the difference in constitution which determines severity or mildness may be a very slight one, for it is common enough to witness that, of brothers or other near relatives apparently of similar temperaments and in like conditions of health, one may suffer very severely, and another escape with a very slight illness.

I feel sure that it is almost impossible to estimate too highly the importance of this fact, that acquired syphilis is, for reasons which we cannot explain, very unequal in its incidence in different persons. From want of giving it due weight we are exposed to endless fallacies in our inferences, both as to the natural history of this disease and the results of treatment.

A precisely similar line of argument is applicable to inherited syphilis. We do not yet know within what limits of severity or of mildness the disease may vary. Our investigations here are even more beset with difficulty and uncertainty than in the case of the acquired disease. We do not, in the first place, know whether inherited taint is always the same kind. It has been customary to assume, as regards inheritance, that the child born nearest to the parent's taint is the one most likely to suffer severely, and that the younger, if they do not escape entirely, may probably suffer only slightly. But a possible fallacy underlies our creed in this matter, which it is very desirable to expose. It may be that, after all, there are no degrees of severity in inheritance, no varieties in the potency

of the virus received by the child, and that if a child inherits any taint whatever, it inherits, as a necessity, the whole disease. It is possible that the extremely unequal severity with which different children suffer is to be explained rather by differences in idiosyncrasy than by supposing that one received a large dose of the poison and another a small one. That this is really so may be made probable if we can show that of children, born within equally short periods of the parental contamination, the range of variation in severity is as great as in those more remote. It is with the hope of supplying some evidence on this and on many other points in respect to the facts as to inheritance of taint that I have ventured in these pages to give so many cases. They are purposely put as concisely as is possible consistently with clearness of statement. Isolated cases prove but little, and, being firmly convinced that it is only by the most liberal citation of evidence that we can hope to arrive at truth, I make no apology for trespassing on the reader's patience with so many case narratives.

I cannot better illustrate the apparent irregularity with which the taint of syphilis is transmitted to children than by mentioning two cases which were brought recently under my notice on the same day. On the morning in question a surgeon from the country consulted me respecting his own case. He had married three or four years after syphilis, having been under treatment in the first instance for about six months, and having believed himself quite well for two years or more. His wife never suffered, but her first two conceptions ended in dead births, and the next two children, although born alive, died with the usual symptoms of inherited disease. Seven children now living have all in turn shown symptoms of infantile syphilis. Thus, it would appear that eleven conceptions have in succession been tainted, the inheritance

being from the father only, he being in fair health, and a period which has now reached fifteen years having elapsed since he contracted the disease. Let me mention my next case in contrast. On the same morning my friend, Dr. Fletcher of Camden Town, brought to me a married lady, from the country, with whose antecedents he was well acquainted. This lady's husband had contracted syphilis during her first pregnancy, and had been treated for it by Dr. Fletcher. His wife about six months later showed the usual symptoms, had rash, lost her hair, and had sores on the tongue. Her primary symptoms had been neglected, her husband not choosing to run the risk of exciting her suspicions. After this Mrs. X. has remained under Dr. Fletcher's observation at times until the present date, and she still shows numerous sores on the sides of the tongue and at the angles of the mouth, and has a few patches remaining on the skin. It was for these persistent symptoms that she was brought to me. Now, the remarkable fact as to inheritance is this, that this lady has, during the last two years, borne two children, and that neither of them has shown any symptoms. It will be seen that they are the offspring of parents both of whom have suffered within three years, and one of whom (the mother) still shows symptoms indicating considerable activity in the virus. I have been careful to say merely that they have shown no symptoms, not that they have escaped, for I do not believe that they have escaped. I should almost regard it as impossible that children could be born under such circumstances and escape a taint. Without, however, believing that they have really escaped, the two series of facts may serve well enough to illustrate my point as to the very unequal severity in the incidence of the disease, and to suggest a source of fallacy in our observations which we ought constantly to keep in mind, and for

which it is almost impossible to make too much allowance.

Commentary CCX.

Does the strumous diathesis, properly so-called, ever produce periosteal nodes like those of syphilis?

The following narrative may suitably introduce this important question.

The case was sent to me by my late colleague and friend, Dr. Woodman, on April 2, 1870. The patient was a little boy, aged three. He did not at first sight look like the subject of hereditary syphilis, being florid and without any special peculiarity of physiognomy. He had a troublesome eczema about the mouth likely to leave superficial fissures. He was rickety in a slight but positive degree, his thigh bones and tibiæ being curved forwards. He had knock knees and flat feet. There was no pigeon breast. His mother stated that in infancy he was healthy with the exception of severe thrush. He was suckled till the age of fifteen months, and had an abundant supply. When two years old a number of periosteal swellings showed themselves on different bones. The right radius, the right tibia, and the left carpus were affected, subsequently the left ulna showed a similar swelling. In no case was a joint affected excepting in the carpus. All these swellings now at the end of fifteen months remained as chronic nodes, that of the carpus alone having gone on to abscess. The nodes were in no way distinguishable from those met with in inherited syphilis.

The boy looked strumous rather than syphilitic. He was of fair complexion with blue eyes. He could run about actively, and had never had any special pain in the swellings at night. There was no history of syphilis in the family. Four children older than he were living and all were well, the single suspicious fact mentioned being that all in infancy had severe

"thrush which went through them." He also had this.

Thus it seemed certain that the boy was the subject of the strumous diathesis and had suffered from the rachitic dyscrasia. Do these, one or both, account for his nodes? It is one of those cases in which possibly at some future time evidence of a more conclusive kind may be obtained. Thus some one of the family may perhaps show definite indications of hereditary syphilis, keratitis, notched teeth, or the like. For the present the evidence favours the belief that the nodes are strumous or rachitic. Yet, in spite of the evidence, I incline to believe them syphilitic. In each instance the node involved several inches of the length of the bone, and was tender to touch, having ill-defined margins. There was no redness of skin over any.

Fifteen years have elapsed since the above notes were written. I have not obtained any other facts in reference to the patient or his family, and it is not now in my power to do so. Further experience in respect to the general question would, however, incline me to give a much more decided opinion that the boy must have been syphilitic. Year by year I am less inclined to believe that either struma or rickets ever simulates syphilis by producing multiple nodes. Especially when the nodes occur in the shafts of long bones they are likely to be connected with specific taint.

CHAPTER XII.*

ON THE RECOGNITION OF INHERITED TAINT.

Commentary CCXI.

On the means of recognition of the subjects of heredito-syphilis in periods subsequent to infancy.

THE establishment or otherwise of a diagnosis of inherited venereal taint must always be treated as a matter involving peculiar responsibility. It is often one of great difficulty, and requiring the cautious use of special knowledge. In most cases the surgeon is precluded either by moral obligations or by motives of kindness from asking any direct questions, or even such as may excite suspicion. If it is the mother of the patient to whom such questions are put, it is very possible that they may be the means of inducing her to suspect that which she had never before dreamed of, and which, whether true or otherwise, may poison the happiness of her life. There can be no duty more imperative in the exercise of our profession than that of abstaining from needlessly exciting in the minds of our patients suspicions as to conjugal purity. In a general way there is much less need of caution in seeking information from the father of such a patient than from the mother. Still, no one would willingly be guilty of the cruelty of leading a father, however correctly, to attribute the sufferings of his child to his own faults. These considerations greatly increase the importance of those objective symptoms upon which we are accustomed to base a

* The remarks in this chapter apply only to the recognition of the heredito-syphilitic diathesis at ages considerably advanced from infancy.

diagnosis of this nature. I shall endeavour to be as explicit as possible in defining the degree of value which I believe to attach to some of these.

In any case in which a syphilitic taint is suspected we must seek certainty, first by inspection of the patient's symptoms and developmental peculiarities, and secondly by inquiries as to infantile history.

By far the most trustworthy amongst the objective symptoms is the state of the permanent teeth, if the patient be of age to show them. Although the temporary teeth often, indeed usually, present some peculiarities in syphilitic children, of which a trained observer may avail himself, they show nothing which is pathognomonic, and nothing which we dare describe as worthy of general reliance. The *central upper incisors of the second set are the test teeth*, and the surgeon not thoroughly conversant with the various and very common forms of dental malformation will avoid much risk of error if he restrict his attention to this pair. In syphilitic patients these teeth are usually short and narrow, with a broad vertical notch in their edges, and their corners rounded off. Horizontal notches or furrows are often seen, but they as a rule have nothing to do with syphilis. If the question be put, are teeth of the type described pathognomonic of hereditary taint? I answer unreservedly, that when well characterised, I believe they are. I have met with many cases in which the type in question was so slightly marked, that it served only to suggest suspicion, and by no means to remove doubt, but I have never seen it well characterised without having had reason to believe that the inference to which it pointed was well founded.

The appended plate (Plate VI.) will illustrate, better than any verbal description can, the characters of the syphilitic teeth. Figs. 2, 3, 4, and 5, show typical malformations. The tooth in Fig. 1 had been only

very recently cut, and some small spines are seen occupying the notch, which in a short time would be broken away, leaving a state resembling that shown in Fig. 3. In Fig. 3 one of the canines is notched, a very exceptional condition. Fig. 4 shews the central incisors of good length, although narrow, whilst in all the others they are much dwarfed as regards length also. In Fig. 5 we see the foliated or wart-like tops which the lower incisors sometimes present.

Next in value to the malformations of the teeth are the state of the patient's skin, the formation of his nose, the contour of his forehead, and shape of his head. The skin is often thick, pasty, and opaque, but not unfrequently remarkably soft and silky. It often shows little pits and scars, the relics of a former eruption, and at the angles of the mouth are radiating linear scars running out into the cheeks. The bridge of the nose is usually broad and low, often it is remarkably sunken and expanded. A want of firmness in the cartilaginous septum, allowing the end of the nose to be shaken about too easily, is a frequent condition to be noticed. The forehead is usually large and protuberant in the regions of the frontal eminences; often there is a well-marked broad depression a little above the eyebrows. The hair is usually dry and thin, and now and then (but only rarely) the nails are broken and splitting into layers. If the eyes have already suffered, a hazy state of the corneæ, and a peculiar, leaden, lustreless condition of the irides, with or without synechiæ, may be expected. If, however, the eyes have not yet been attacked by syphilitic inflammation, they will present no deviation from the state of perfect health and brilliancy. The occurrence of well-characterised symmetrical interstitial keratitis is now considered by almost all authorities as pathognomonic of inherited taint. It is almost constantly coincident with the syphilitic type of teeth, and when

these two conditions are found together in the same individual, I should certainly feel that the diagnosis was beyond doubt. As a general rule, however, it is only by the careful estimate of various physiognomical conditions and symptoms considered together, and mutually supporting each other, that the diagnosis of this diathesis can be established. I must especially beg of those who have not previously made the deformities of the teeth the subject of special study, to be very careful in their inferences. Mistakes, leading to painful and much regretted consequences, may ensue from too hasty reliance upon misinterpreted symptoms.

Not only is the skull very prone to show peculiar prominences in the frontal eminences, but there are frequently low protuberances on other parts. The skull, as a whole, is often somewhat squared. All the long bones ought also to be examined, more especially the tibiæ, for not unfrequently nodes will be discovered on them. These are sometimes attended by overgrowth of the bone in length. The state of the patient's hearing must be examined. If there be symmetrical deafness or the history of a past attack of deafness without discharge from the ears, the fact is strongly corroborative. Lastly a careful ophthalmoscopic inspection of the fundus must be made. Patches of absorption in the choroid in the extreme periphery are often present, and their value for diagnosis is very great, although possibly they are not to be considered as pathognomonic of syphilis. A condition somewhat resembling retinitis pigmentosa will be sometimes seen, but it is rare and not wholly trustworthy.

Commentary CCXII.*On the details of diagnosis of inherited syphilis by the teeth.*

Although my opinions concerning the value of malformed teeth as indicative of congenital syphilis have undergone no important modifications since the publication of my first papers on this subject in 1858, yet I have in various directions become acquainted with details with which at that time I was not familiar. If I were now asked whether the teeth may be treated as conclusive in the absence of history and of corroborative conditions, I would answer, without hesitation, that in many cases they may. There are teeth, and they are seen not very infrequently, so characteristic that I should feel sure, in the absence of all other facts, or even in spite of them, that the possessor of such teeth must have inherited syphilis. In a large majority of cases, however, the teeth are not so characteristic as to justify such an opinion; they suggest suspicion only, and are to be allowed more or less weight in different instances, and in relation with the corroborative facts. That the employment of the malformations of the teeth, as symptoms, is a matter of much practical difficulty I have had abundant opportunities for knowing. In many cases patients have been sent to me as "obviously syphilitic," and as having "typical teeth," in whom I could not find any reason to suspect inherited taint. It may be worth while, therefore, that I should endeavour to specify some of the more common risks of error.

The first danger is forgetfulness of the fact that the milk teeth are never characteristically malformed; and the next, neglect of the rule that it is to the upper central incisors, almost, solely that we should look. It

is quite true that the other teeth, more especially the incisors of the lower set, are often malformed at the same time, but their peculiarities are not characteristic ; and although these may be very conspicuous, they may be, and usually are, due to other causes than syphilis.

It is quite true that the milk teeth in syphilitic children are often very peculiar. In my original papers, as well as subsequently, I gave some good pictorial illustrations of the manner in which the milk teeth usually suffer. Sometimes the tooth sacs suppurate, and the crowns of the teeth, almost always the upper central incisors, are exfoliated before they are cut. The occasional occurrence of this is one of the strongest facts which I can adduce in support of the assertion that the gums and tooth sacs are liable to congestion and inflammation during the secondary stage of syphilis in infants. I have never witnessed this suppurative exfoliation of the upper incisors excepting in those who were syphilitic.

A far more common event than exfoliation is caries, and it is often very peculiar in its form. The neck of the tooth is attacked, and is rapidly eaten through, and the crown drops off. In this way all the incisors of the upper jaw may be destroyed, and the child, from the age of two to that of six, may be without teeth in this position. Sometimes the lower incisors also are affected, but more rarely. What the cause of this destructive caries may be I do not know. Inasmuch as the crown is first calcified, we can easily see how it may escape the possibility of damage during a syphilitic illness occurring at the age of a month or six weeks after birth, whilst the neck and fang may be defectively organised. This is probably the explanation. Although exfoliation of the crown is rare, it is possible and probable that minor degrees of inflammatory action are common. We may conjecture that the children who show tendency to

rapid caries of the neck are those in whom, during infancy, the inflammation of the tooth sacs stopped just short of suppuration. Another suggestion yet more plausible is, that the children who suffer from early caries are those in whom mercury has been freely given to their mothers during pregnancy. Clearly, in explanation of peculiarities presented by the milk teeth, we have to suspect influences which have been brought to bear during the later periods of intra-uterine life, or the earliest ones of infancy.

The conditions which I have mentioned as not uncommon in the milk teeth of syphilitic infants are not to be treated as pathognomonic symptoms. They can at best rank only as suspicious, for probably states closely resembling them occur not infrequently in those who are not syphilitic.

When we come to the permanent teeth, the most frequent mistakes occur in respect to the craggy, foliated, indented, and fluted teeth, which usually imply stomatitis in infancy. These defects in the teeth are often far more conspicuous than the peculiarities which denote syphilis. Hence occur frequent errors in diagnosis, sometimes of a very serious kind. To avoid such it is well, in addition to the primary rule to look only at the upper central incisors, to note the following memoranda:

All transverse markings (that is, lines which cross several teeth on the same level) are to be disregarded.

All mere defects in enamel formation leading to pits or honeycombing, or irregular breakages, are to be disregarded.

Foliated or wart-like projections on the teeth, with of course defect of enamel, although very suspicious, are untrustworthy.

What have been called peg-like teeth (or inaccurately "peg-top" teeth) are also suspicious but not trustworthy.

In looking at the "test teeth," the upper central incisors, we must observe chiefly their size and their edges. Typical teeth have always a single notch, usually shallow, in the middle of their edges. The notch is more or less crescentic, and is accompanied by a rounding off of the angles. The tooth is almost always dwarfed, both as regards its length and width; often very much so. It is not flattened out as a normal incisor is, but rounded, and more or less peg-like. In most cases the enamel is deficient in the middle of the notch, but not always. The teeth are often not properly placed, but incline either towards each other, or in the opposite direction. They are seldom large enough to touch both their neighbours.

Able observers, Mr. Moon and others, have described certain peculiarities in the form of the molars, "dome-shaped teeth," which are more or less characteristic. Respecting these and all other peculiarities (and they are many and valuable to those who know how to use them), I can only say to those not specially skilled, Beware! It is safer to trust only to the upper central incisors. If they are typical, it suffices; whilst if they are not, no other peculiarities with which I am acquainted can justify a diagnosis.

Commentary CCXIII.

On the absence of malformations of the teeth and of keratitis in many cases of inherited syphilis.

Syphilitic teeth are present probably in only a minority of those who are the subjects of inherited syphilis. This, at any rate, is true if we restrict our attention to such teeth as are characteristic. It is unquestionably true that teeth of perfect development may not infrequently be seen in the mouths of those who yet have suffered severely from inherited taint. In such cases it is to be presumed that the stage of

inflammation of the gums in early infancy, by which we seek to explain the malformations, has been omitted.

It curiously happens that certain results of inherited taint are usually met with in those who do not show malformed teeth, whilst others but seldom occur except in company with them. I long ago noted that in cases of ulcerating gumma of the palate in young persons the teeth are seldom or never typical, and subsequent observation has fully confirmed this statement. The same patients not infrequently escape the occurrence of keratitis. The omission of both these very valuable indications of taint led me for some time to feel doubt whether these palate cases were really syphilitic. This doubt has, however, been wholly removed by increasing experience. I should now regard acute ulcerative destruction of the palate in a young person as being in itself an almost conclusive proof of inherited taint, and should attach no diagnostic value to the absence of keratitis and of malformed teeth.

Whilst both keratitis and malformed teeth are not infrequently absent when the palate ulcerates, they very commonly support each other. Few who have well-characterised teeth escape keratitis, and it is exceptional to see keratitis without typical teeth.

Those who have not typical teeth often fail also to show any peculiarities in physiognomy. This amounts to saying that all who in infancy have suffered severely, and in whom as a consequence the physiognomy has received a stamp, have suffered also from stomatitis as a part of the general disease. This statement involves the admission that there exists a class of patients in whom, in spite of the modern development of diagnosis, the recognition of inherited taint is still a matter of great difficulty, perhaps impossible. How large this class may be we cannot tell. Probably it is not a large one. We must, however, be prepared

to encounter now and then manifestations of inherited syphilis in those who do not show a single corroborative feature.

CHAPTER XIII.

COMMENTARIES ON CERTAIN AFFECTIONS OF THE SKIN,
THROAT, BONES, ETC., IN CONNECTION WITH THE
INHERITANCE OF SYPHILIS.

Commentary CCXIV.

*Malformations of joints consequent upon syphilitic
periostitis in infancy.*

SINGULAR and very deceptive malformations of joints are sometimes produced by the irregular overgrowth of long bones in congenital syphilis. They are sometimes helped by alterations in the shape of the epiphysial extremities due to the same cause. Many years ago, I had under care in the London Hospital a girl of about six, who had large nodes on both her femurs, and was unquestionably the subject of inherited syphilis. The forms of her elbows were altered in such a way that the end of the radius was displaced upwards on the external condyle and a dislocation was closely simulated. We were doubtful whether or not it was a congenital condition, but I was more inclined to refer it to influences mentioned, and to think that the radius was overgrown. Some facts subsequently supplied to me by Mr. W. E. Hacon, of Upper Holloway, gave support to this opinion. Mr. Hacon's patient was a girl of fourteen, the subject of specific disease, who had formerly suffered from keratitis and multiple nodes. One elbow looked exactly as if the radius were dislocated forwards, "but, on more careful examination,

it was certain there was no dislocation and that the deformity was owing to flattening of the external condyle." There was such an alteration in form of the lower epiphysis that in measuring across the back of the joint, from one condyle to the other, there was a difference of nearly an inch in favour of the affected side. Thus the external condyle projected much more than the internal one (contrary, of course, to what is normal).

Mr. Hacon told me that he had seen two somewhat similar cases. These curious deformities are probably due to overgrowth of some parts of the epiphysis itself, just as we get overgrowth of long bones under similar circumstances, as the result of lasting syphilitic inflammation.

When anything approaching to osteitis deformans occurs to children, it is almost always consequent on syphilis.

Commentary CCXV.

Periostitis in infancy ; arrested growth of radius.

Mr. and Mrs. C. suffered from syphilis together, and rather severely. Both were treated with mercury, but I believe not for long.

Their first infant, born in May, 1880, died.

Secunda, born in 1881, was brought to me when fourteen weeks old. She had bad snuffles, and was covered with a dusky papular eruption. These symptoms had begun at six weeks old. She had also swelling and pain about the left wrist, and it is on account of this symptom that I mention the case. Six or eight months later I saw her again. She was still a very small child, but had got rid of all symptoms excepting enlargement of the lower end of the radius, which was still considerable. It appeared that the growth of the radius had been arrested, for the overgrowth of the ulna was pushing the carpus over to the radial side. I

was told that there had been nodes on the skull, but they had now disappeared.

Commentary CCXVI.

On ulceration of the palate in inherited syphilis.

It is a very important fact, that in cases in which the palate and nose are attacked the teeth are but seldom malformed. I do not know how to explain this, but of the fact I feel certain, and it has often caused great difficulty in diagnosis. A boy of twelve was under my care in the London Hospital for a perforating ulcer in his soft palate. It was almost phagedænic, and could scarcely have been due to anything except syphilis. Yet his physiognomy was good, his teeth were perfect, and I could get no history which supported the suspicion. Under iodide of potassium, and local cauterisation, the sore healed. Six months later the same boy came to me at Moorfields with interstitial keratitis of a characteristic form. I therefore feel no doubt that he was really syphilitic. I have seen a considerable number of cases of destruction of the palate in children in whom neither teeth nor physiognomy suggested syphilis. The history is, of course, often quite negative. I have formed an impression which becomes increasingly strong every year, that it is wise to treat such cases as syphilitic, that is, to cauterise and push the iodide. It is possible that in a few cases scrofulous lupus may produce similar destruction, but I much doubt it as a frequent event. If at any stage there is a tendency to phagedæna the case is almost certainly syphilitic. If keratitis has occurred, or there be evidences of past choroiditis, the diagnosis is nearly complete.

If the soft palate should be *perforated*, it is a very strong fact in favour of the diagnosis of syphilis. Lupus may creep round the edge of the palate, and

may destroy much tissue, and leave adhesions, but it does not produce perforating ulcers. The most important aid in diagnosis is the rate of progress. Syphilitic ulceration spreads rapidly ; true lupus is always very slow.

Commentary CCXVII.

Phagedænic ulceration of the throat and nose in connection with inherited taint ; patient both blind and deaf.

Mr. Snell, of Victoria Park, in 1879 sent to me a patient whose case was of great interest. She was deaf, almost blind, and had lost her nose and the whole of her palate. I think I never saw more complete destruction of the palate. None of it was left, and the fangs of the molar teeth were all exposed. The incisors had fallen out. The teeth which remained were perfect as to form and state of enamel, but it is to be noted that the patient had lost her characteristic ones. She had had extensive iridectomies done at Moorfields on account of corneal opacities. We may take it as certain, from this combination of lesions, that she was the subject of inherited syphilis, and her mother corroborated this diagnosis by telling me that in infancy she was very delicate and "snuffled for a long time." My chief reason for publishing this case is in order to enforce the distinction between phagedænic syphilis and lupus. The end and alæ of the girl's nose were destroyed, and the nostrils exposed, and some might be inclined to suggest that it was the work of lupus. But we must observe that the scar left was white and healthy, that there were no tubercles near it, and that the process of destruction was quite at an end. Had it been lupus we should not have seen such perfect repair, for in spite of the best treatment lupus almost always tends to relapse, and very seldom

leaves a white scar. Next we must note also that the destruction had been very extensive. The whole nose, alæ, turbinated bones, vomer, and everything were gone, a condition common enough from syphilis, but very rare in lupus. The latter is a disease of skin and mucous membrane, and rarely goes deeper than these tissues. It is of great importance to make the diagnosis correctly between phagedæna of the nose and lupus, for the treatment of the two is quite different. If in phagedæna we miss the proper measures at the right time, the patient will inevitably lose the nose, for the destruction is very rapid, and shows no tendency to spontaneous arrest. It will destroy as much in weeks as lupus can in years. The treatment is to apply freely the acid nitrate of mercury and to give iodide of potassium. If this be done the cure is quickly effected. No case ought to get worse after the surgeon has been consulted. The subjects of this form of destructively spreading syphilis, which looks like lupus, are usually young persons about the age of puberty, and often girls. It commonly happens, as already stated, that they do not show typical teeth. Destruction of the palate often occurs at the same time, for all phagedænic action is contagious in the patient's tissues, and tends to spread.

Commentary CCXVIII.

Case illustrating the diagnosis between congenital syphilis and rickets.

A little girl, D. B., aged two years and a quarter, was brought to me by a mother who appeared to be in good health. I was told that her father also was in good health. The child had been born soon after marriage, and had appeared to be quite healthy at birth, and for a year afterwards, with the single exception that she had snuffled somewhat. She was nursed at

the breast for three months. At the age of fourteen months she had a little eruption on the face and subsequently "an attack of German measles." During the last month for the first time she had shown small condylomata at the anus and on the vulva. She was late in development, and scarcely yet able to walk. There was no doubt that she was in a mild degree rickety. She had always sweated much, and especially on the head. All her front teeth had "rotted away." Her head had lumpy projections on the frontal and parietal eminences. She had been vaccinated from the calf.

It will be seen that we have here several conditions requiring careful interpretation. The condylomata were, I think, conclusive indications of syphilis, and their presence helps us to believe that the nodosities on the skull bones were also syphilitic and not from rickets. It is to be noted that the condylomata showed themselves very late. The absence of history, and the apparently good health of the parents are facts which must not be allowed much weight. If the condylomata had never occurred, the case might, however, have easily been considered as one of rickets only, and the skull peculiarities might have been claimed as belonging to that malady.

The rotting away of the front teeth may, I think, be trusted to a certain extent as a symptom of syphilis. It is at any rate common in syphilitic children, and rare in rickets. It may be plausibly suspected that it is caused by mercury administered to the mother during pregnancy.

Commentary CCXIX

*On the forms of lupus which occur in connection with
inherited syphilis.*

I entertain a very strong opinion that the common type of what is known as lupus, whether ulcerating

or otherwise, has no connection with inherited syphilis. At any rate, it occurs very constantly in those who show not the slightest sign of the heredito-syphilitic diathesis, and, on the other hand, out of several hundred cases of the latter, I have not more than once or twice met with it. There are, however, peculiar forms of ulceration of the skin to which the term lupus may be fairly given, which are directly connected with this taint, and which occur with tolerable frequency in those who are the subjects of it. These forms of ulceration are not attended by the formation of chronic tubercles, as in true lupus. One form consists in rapid, almost phagedænic ulceration, the other is serpiginous and slow. The phagedænic variety will destroy within a few weeks as much tissue as lupus usually does in years. It is ulceration simply, and when cured the parts pucker closely together, and there is no thick glossy cicatrix left, such as we usually see after common lupus. If once the ulceration is arrested, the sore will heal soundly in a week or two, or even in less. The iodide of potassium will sometimes arrest this form of ulceration in the most specific manner. Reliance should not, however, be put on it alone, as the destruction is often rapid, and we cannot afford to lose time. Together with its exhibition it is well also to use some local escharotic, such as the acid nitrate of mercury. Often iodoform or iodol in powder will succeed, and they are less painful than the caustic.

Commentary CCXX.

Destruction of the palate in hereditary syphilis ; portrait of the heredito-syphilitic physiognomy published seventy years ago ; syphilitic throat in the father of the patient.

Dr. Wilks was kind enough to lend me a short religious autobiography, printed before I was born, which

contained an excellent portrait of the heredito-syphilitic physiognomy. It is entitled, "The Conversion and subsequent history of Benjamin Lawson, an Afflicted Youth, deprived of his Speech by Scrofula ; on account of which he was for nine weeks an indoor patient in King's Ward, St. Thomas's Hospital, in the year 1815." The portrait prefixed shows the bridge of the nose sunk level with the cheeks, and the forehead large, with prominent frontal eminences. The subject of the autobiography records that he was born in 1798, in Coppergate, York, "of poor but honest parents." At the age of twelve years he began to suffer from a very bad sore throat, and subsequently had a discharge from his nose. At the age of sixteen a loose piece of bone came out of his nose ; at this time he was very feeble, but still worked as fly-boy in a printing office.

After this, bone continued occasionally to come away, and he was, as stated, Mr. Cline's patient at St. Thomas's in 1815.

He recovered from a condition which appears to have been thought almost hopeless, and lived ten years longer. The precise cause of his death is not recorded ; he mentions, however, a fact which corroborates the diagnosis of syphilis. Whilst he was in the hospital his father had a bad throat ; "it had been bad three months, and still kept getting worse, so that he could scarcely eat."

"A kind friend, Mrs. G., who called to see me, got my father visited by the Methodist Society for relieving and communicating religious knowledge to the poor. The kind friend who came last to visit my father was a medical gentleman, who, on looking at my father's throat, told him if he did not get into some hospital he might soon be a dead man ; he might get cured then, but he was dying for the use of means." He "got a letter for the Middlesex Hospital,"

and when "he had been there but a week he appeared much better." Concerning his own throat, the young man writes, "I was afraid to take anything solid for fear it should stick in the hole in my palate and choke me; which, by the long progress of the disease, was as large as a shilling, directly over the throat; and, by the frequent loss of pieces of bone, occasioned such a vacancy, that if anything lodged there, it nearly caused suffocation, and almost choked me till I got it away. I got so hungry I was afraid I should be starved to death; for though the thick milk was very nourishing, yet I always felt hungry after it."

This narrative is, I think, valuable as evidence in favour of the syphilitic nature of disease of the bones of the palate and nose, such as were formerly, and still are by some usually called "strumous."

Commentary CCXXI.

Case of extensive destruction of palate and nose from inherited syphilis.

A young man from S., aged nineteen, presented a good instance of destruction of the palate and nasal bones by congenital syphilis. His nose was one cavity, every trace of the vomer and turbinated bones having disappeared. The uvula and adjacent parts of soft palate had been destroyed. His nose had fallen down considerably and the right ala had been in part destroyed. In 1885, six years after the beginning, all the parts were soundly healed and there appeared to be no fear of a relapse.

His teeth were good, and his physiognomy showed but little peculiarity. No projections on the frontal eminences were recognisable by the eye, but to the finger they were distinctly so. There was a considerable osseous node on one tibia.

It will be seen that in this case, although the

destruction within the nose was very extensive, there was but little else by which to recognise the diathesis. It might easily have been a case in which all hereditary taint might have been deemed to be absent. The node of the tibia alone revealed the taint, and it by no means decided the question as to whether we had to deal with inherited or acquired disease. When I add that the boy was the youngest of his family, and that all his brothers and sisters were quite healthy, it will be seen, yet more clearly, how near we might have been to a mistaken conclusion. The final evidence was given by the family surgeon, who was cognisant of the fact that his parents had both had syphilis shortly before his birth, and that his mother still suffered. Such a case ought, I think, to be allowed very considerable weight whenever, in the absence of history or of corroborative lesions, we may be tempted to say that destruction of the nasal bones or ulceration of the palate is of "strumous origin."

I have repeatedly remarked on the comparative absence of other signs of taint in cases in which the nose suffers. Thus the teeth are seldom notched, and sometimes, I think, the keratitis also is peculiar. In this instance the youth told me that three or four years ago he had experienced a long attack of inflamed eyes. It had left no traces.

A year or two after I had seen this patient, his mother consulted me. She was the subject of locomotor ataxy, and twenty years previously she had severely suffered from syphilis. Since ataxy is of comparative rarity in women, it is of interest to note this fact as to her antecedent history.

Commentary CCXXII.

A woman, the subject of inherited syphilis, the mother of healthy children; diseased hip joint in one of the latter.

Mrs. M., aged forty-seven, attended for some months during 1862 in our out-patients' room, bringing her daughter, who was the subject of diseased hip joint. This daughter was a girl of thirteen, healthy-looking, and with teeth of perfect form and colour. It was the mother's case which chiefly interested me. Mrs. M. had the aspect of inherited syphilis well marked. Unfortunately she had lost all her front teeth, with part of the alveolus. The bridge of her nose was sunken, and there was a large hole through the hard palate, involving nearly its entire length as far forwards as the alveolus. Both her corneæ were hazy from bygone keratitis. She said that when she was a girl she had for long "very bad eyes." The loss of palate, teeth, etc., occurred at the age of twenty-one; she was then under treatment in St. Thomas's Hospital.

Mrs. M. had borne six children, of whom four were living, and, with the exception of our patient with diseased hip, all were quite healthy. She had herself enjoyed good health for some years.

Commentary CCXXIII.

Glandular disease in hereditary syphilis.

Elizabeth W., aged fifteen, was admitted, in December, 1876, with interstitial keratitis. Her forehead, physiognomy, and teeth were all suspicious. She was the eldest living. Whilst under treatment for the keratitis, which was most characteristic, she had a large swelling form under the upper half of the

sterno-cleido mastoid. It rapidly subsided under iodide of potassium, and when reduced it became quite clear that there were numerous glands enlarged. It was partly glandular, and in part there was infiltration of cellular tissue around them. She was stout and fairly healthy looking.

Appended is the history of her family as supplied by her mother :

Mrs. W., married nineteen years, æt. 43.

1. Died, æt. 11 months, of "bronchitis and water on brain," "not a healthy infant," "bad thrush."

2. A miscarriage at four months.

3. The patient had had snuffles and thrush very badly indeed : "went through her;" now (æt. 15) well grown but with severe interstitial keratitis.

4. Boy, æt. 13; no symptoms; quite well. Mother had ulcerated womb for nine months.

5. Twins, dead born.

6. F., æt. 5, healthy.

Mrs. W.'s husband was living, and had, excepting "bad rheumatics," good health. He was 43 years of age. Mrs. W. herself had had nothing definite; indeed, no ailment whatever excepting the "ulcerated womb."

Commentary CCXXIV.

On sclerosis of bones.

Nearly all pathological museums contain specimens of thick, heavy bones, much enlarged in almost their entire length, much increased in density, and having their surfaces roughened. The enlargement is usually fusiform, and, although involving a large extent of the shaft, preponderates towards one or the other end. There is usually no local bulging in the ordinary form of a node. These bones are, I believe, almost always those of syphilitic subjects. In some cases they may possibly represent the results of osteitis from

inherited syphilis. But more usually, I believe, they are from those who have suffered from the acquired form. Concerning the specimens themselves there is often no history to be obtained, and I cannot say that I have ever had the opportunity of securing such a bone from a case in which the history was previously known. I have, however, treated several patients in late stages of syphilis for long-persisting aching in bones, attended with fusiform enlargement. The process is usually very chronic, difficult to influence by treatment, and very prone to relapse after cure. The femur is the bone usually affected. The disease is a chronic osteitis producing sclerosis, and not a periostitis.

I may quote one case as being probably an example of the disease to which I refer. The patient was a robust man, who had suffered from syphilis many years before I saw him. He was under my treatment for a long period on account of relapses of pain in his femurs. Sometimes one bone would be affected, sometimes another, and the bones would ache intolerably. He was often kept awake a whole night, and had got into the habit of taking opiates. Iodide of potassium did but little for his relief, and we were usually obliged to give mercury. The left femur was very decidedly thickened, the thickening involving chiefly the lower part, but extending above the middle. On several occasions I pushed mercury to ptyalism, with the result that the pain for a time left him, but it usually soon returned. It was bad both day and night, but worse during the night. In addition to the osteitis of his femur he had much pain in the dorsal and cervical vertebræ. Spondylitis deformans appeared to be in progress. He had suffered from gonorrhœa as well as syphilis, and it was after the gonorrhœa that the pain in the back began. About two years after I had first seen this patient, and after he had been

repeatedly relieved of the pain in the bone by treatment, he became suddenly attacked by intense pain in his head. The pain was never absent day or night, but was worse between midnight and four in the morning. These hours were usually spent in walking up and down stairs ; about four o'clock he could get to sleep. Neither iodide of potassium nor mercury did anything for the relief of this pain ; and after it had lasted for about a fortnight he became hemiplegic, passed into coma, and died. I did not see him during his head-illness, the particulars of which were subsequently supplied to me. No node of the skull was susceptible externally. I did my best to obtain a post-mortem, hoping to secure the femur, but was not successful.

Commentary CCXXV.

On the relation of osteitis deformans to inherited syphilis.

The disease known as osteitis deformans, which has been so ably described by Sir James Paget, has probably in its most typical forms no connection with syphilis. In these cases the bones soften, enlarge, and bend ; and the patient, usually an adult, or past middle life, loses very considerably in his stature. I do not know of any close simulation of this disease in connection with acquired syphilis. But cases which may easily mislead are not at all uncommon in consequence of inherited taint. Children from the age of six to ten or fourteen appear to be the most prone to suffer from bone-disease of a syphilitic nature. At this period of life multiple periostitis of a very extensive kind is not uncommon. The disease is very chronic, lasting for years, and leading to overgrowth in length, as well as to enlargement. The tibia is the bone most frequently and most severely affected, and it may bend forwards until it closely resembles the conditions both of osteitis deformans

and of rickets. In former days such cases were very frequently treated as rickets. Not only do the bones bend in reality, but the appearance of bending may be exaggerated by the formation of a series of long smooth nodes on their front surfaces. There is almost always present also overgrowth in length, and sometimes one tibia may be an inch and a half or two inches longer than its fellow. The diagnosis from rickets is usually made easy by attention to the history of the case, and also by observation of the irregularity with which the affected bone is thickened. In rickets there is no lengthening; while lengthening is often a prominent feature in the syphilitic form of osteitis deformans. I have seen many good examples of the latter disease, and have often had occasion to discuss the question of diagnosis. Although the malformations of the teeth are often present, they are not infrequently absent, and if the history chance to be denied, or be unobtainable, the diagnosis may become subject to some doubt. My conviction, from the observation of a good many cases, is that the disease itself makes the diagnosis; and that the multiple chronic periostitis of childhood and adolescence, attended with overgrowth and thickening, is always syphilitic. One of the most remarkable examples of this disease I have ever seen was under the care of Mr. Machin of St. Thomas's Hospital, and was exhibited by him at a meeting of the Clinical Society. In this case, the subject of which was a lad of about fifteen, almost all the long bones were affected. The teeth were well formed, and the family history was, I believe, negative. There were, however, large nodes on the lad's skull, some of which had softened. A node on one tibia had also ulcerated. The general conditions were such that I confess that I could not have doubted the diagnosis of syphilis, whatever the facts of the history might have been.

Commentary CCXXVI.*Suppuration in joints in inherited syphilis.*

Mr. Arbuthnot Lane brought before the Pathological Society, in 1885, a case of a child, aged eight weeks, which had suffered from a severe syphilitic eruption for two weeks. Acute suppuration was found in many of the large joints, but without any disease of the epiphyses. It may be questioned whether the synovitis was syphilitic or pyæmic.

Commentary CCXXVII.*Dactylitis syphilitica.*

Under this term, Dr. Taylor, of New York, has proposed to recognise the chronic forms of periostitis and osteitis, which are occasionally met with in the phalanges in connection with syphilitic taint. They may occur both from acquired and inherited disease, and are always very chronic.

The swelling is usually greatest on the dorsal aspect, but may surround the bone. The first phalanx is most often affected, but the metacarpal bone, or any of the distal phalanges, may be its seat. The adjacent joints may be involved. The swelling is sometimes globular, and may simulate a cartilaginous tumour, but its softness will generally suffice for diagnosis. Many authors have recorded cases; Chassaignac, Nelaton, Volkman, Berg, Dr. Perry of Philadelphia, and Dr. Morgan of Dublin.

The affection, however, is not a common one. It may lead after absorption to much shortening of the affected digit.

CHAPTER XIV.

COMMENTARIES ON VARIOUS CASES.

Commentary CCXXVIII.

Symmetrical and general disease of the nails in a man who had had syphilis four years previously ; question of diagnosis.

ALL that follows syphilis is not necessarily syphilitic. A gentleman four years past his syphilis, and now the subject of disease of the nails, was brought to me by a surgeon who knew his past history. The question was very difficult as to the share taken by the taint. I will briefly describe his state. All the nails of the fingers and toes were affected, and the symmetry was exact. The nails of the toes had begun first, but were now less definitely diseased than those of the fingers. The disease was of the nail-bed, not of the nail itself, and invariably began at the free edge or side. The surfaces of the nails were still smooth, and to the touch nothing was perceptible, but large portions were undermined and loose, and looked opaque and grey, owing to the changes which had taken place underneath. The whole finger ends were slightly congested, but the nails at their roots, the lunula, etc., were unaffected. Our patient was a healthy man of twenty-eight, and the present disease had begun in the toes about four months ago, and a month later had shown itself in the fingers. The great toes and the thumbs had been the first to suffer. Mr. C. had been under Dr. H.'s treatment for syphilis at intervals for four years. Of late his chief ailment had been sores on the tongue, probably due to smoking, but he had also had, until quite lately, "eczema of the scrotum."

I was inclined to diagnose this as common psoriasis of nails rather than syphilis, for the following reasons: 1. Its characters were exactly those of common psoriasis, and not those of syphilitic inflammation. 2. It had developed quickly, attacking all the nails, and with perfect symmetry (it is most exceptional to see a symmetrical outbreak of any form of syphilis at so long a period as four years after the primary disease). 3. There was a history of liability to dartrous affections of the skin, both in the patient and his family. Since boyhood Mr. C. had, he said, been liable to eczema, and a brother and his mother had also been troubled by it. It was not certain that any had been the subjects of true psoriasis, but the kind of dry eczema persisting locally for years is a malady closely allied to it. Mr. C. himself had, from youth up, been liable to a dry scaling affection of the scrotum, and he had also had dry patches on his elbows and knees. The condition of his nails was exactly like that in a Mr. G., who has for many years been the subject of common psoriasis in a severe form.

Commentary CCXXIX.

Case in which the lip and the penis were infected at the same time with very different results.

An interesting case, in illustration of the relation of the soft sore to syphilis, and in demonstration that ulcers may form immediately after exposure, and remain unhealed and unindurated during the whole period of incubation, is afforded in the following narrative:

Mr. H. W. J. was, about the 20th of July, 1883, exposed to the risk of infection. His prepuce cracked near its free edge, and some sores formed immediately, which he was told were "soft." For these he remained long under treatment. Between five and six weeks after this exposure a sore was noticed on

his lip, and at the end of the tenth week he came to me with a large indurated chancre in his lower lip, and a blotchy eruption on the abdomen and chest. He considered that the "soft" sores on his prepuce were just getting well, but in reality, though just healed, they were taking on induration. There could be no doubt in this case that the contagion to the lip and to the penis took place at the same time, yet we may instructively note the marked difference in the local results. On the lip nothing was noticed until nearly six weeks had elapsed; whereas on the penis, soft sores, so-called, were present during the whole interval. Characteristic induration took place on both parts almost simultaneously, that is, in the seventh or eighth week. Its amount was far greater on the lip than on the prepuce.

Commentary CCXXX.

On the mode of contamination when syphilis is conveyed in the rite of circumcision. A fact as to incubation periods.

I am sanguine that, in the cases of syphilis from circumcision mentioned at page 115, the true method of contamination has been disclosed. It seems to me also very probable that although not previously suspected, this was the method of contagion in most of the like cases recorded by other observers. In particular, I would venture to refer to those recorded by M. Ricord, and to a series more recently published by Dr. Taylor, of New York. The latter observer, to whose diligence syphilography already owed much, has published his cases with his accustomed accuracy and care, though perhaps with a degree of scepticism which many of his readers will not be able to share. His facts, although on a somewhat smaller scale, bear a most remarkable similarity to my own. Four

children suffered who had been circumcised by the same operator (not a surgeon) during a period of four months. Other infants, operated on during the same period by the same man, and with the same instruments, had wholly escaped. There was not the slightest reason to think that the operator had syphilis himself; and, further, he denied that it was his custom to put the penis in his mouth. In most of the cases the whole length of the circumcision wound had inflamed and ulcerated. In two it is stated to have first healed, and afterwards re-opened; in one it became definitely and characteristically indurated; and in another it became phagedænic, and destroyed almost the whole penis. In three of the children the inguinal glands suffered severely, and in two they suppurated.* Three out of the four children died. Only in one case had Dr. Taylor the whole of the facts supporting the diagnosis of syphilis under his own eyes; but the facts which he mentions as regards the others can, I think, notwithstanding Dr. Taylor's hesitation, leave no doubt as to the diagnosis. The severe and extensive inflammation of the wound, its tendency to phagedæna, and the inflammatory implication of the glands, are exactly the conditions which were present in my own series of cases. In one of those three there had been a "syphilitic eruption." The long intervals which occurred between the operations in the different children is again exactly paralleled by what had been the fact in the cases shown to Mr. Macnamara and myself. There is the same difficulty in both sets of cases in supposing that the operator could possibly have had his instruments in a state capable of conveying contamination through so long a period. I should therefore very strongly suspect that the source of contamination was the

* The only case in which the glands did not inflame was that in which phagedæna destroyed the penis.

lining of the box in which he kept his stores of lint. If this be the correct explanation it will be perfectly easy to prevent such accidents in future. It will be necessary only for operators to abandon the filthy custom of taking home the prepuce in the same box with their dressings.

Dr. Taylor's descriptions are admirably complete, and with most of his conclusions I fully concur. In the case of the child who had an indurated cicatrix and a syphilitic rash both present at the time he was under observation, one fact is noted, which is of especial interest to myself. The mother of the child assured Dr. Taylor that the circumcision wound had in the first instance healed well, and that it did not take on induration until two months after the operation. This unusually long period of incubation leads Dr. Taylor to question whether the contamination did really occur at the time of the circumcision. Making, however, a little allowance for inaccuracy on the part of the mother as to dates, and assuming that the sore took a week or ten days to develop into a condition which attracted her attention, there is nothing very unusual in the period of incubation alleged. At page 104 I have tried to show that the incubation period is ordinarily longer than is supposed, and that it is exceptional for it to be less than five weeks.

Commentary CCXXXI.

Ophthalmoplegia interna followed by other symptoms of ataxy; syphilis eight years before; arrest of symptoms after nearly three years' treatment; good health ten years later.

Doubts have been expressed as to the cures of ataxic symptoms by anti-syphilitic remedies, and it must be admitted, that in many cases the benefit

obtained falls far short of a cure. In the sense of a complete removal of symptoms, indeed, we probably never witness a cure. I believe, however, that in many cases I have seen a complete arrest of the progress of this aggressive malady result from prolonged treatment. The following narrative, which extends over fifteen years, may afford encouragement to perseverance under similar circumstances. The patient took specifics for three years, and at first, in some respects, his malady continued to advance. It then became arrested, and now for seven years no treatment has been needed, and although permanent results are still present, there has been no recent aggression. The case is that of Mr. H., published at p. 6 of my paper on "*Ophthalmoplegia Interna*," in the *Medico-Chirurgical Transactions*. This gentleman, at the age of thirty-six, and eight years after his syphilis, came under my care with defective accommodation and motionless pupils. He had also stabbing pains in his limbs. Under mercury and iodides he regained the accommodation to a considerable extent. Subsequently, however, the pains in his limbs much increased, and he lost knee jerk. I urged the continuance of treatment, and he got so well that at the age of forty-two (against my advice) he married. I have seen him recently, seven years after his marriage. He now walks, as he has done for ten years past, with the ataxic gait very marked, but he can walk seven or eight miles without resting, and is accustomed often to mount young horses in the course of his business. His pupils are motionless on exposure, and almost so in accommodation. He needs weak convex glasses for reading, but can manage all but the smallest type without them. There is not the slightest trace of patellar reflex. The stabbing pains in his limbs, from which he used to suffer so severely that morphia injections were needed, have

not troubled him for five years or more. He avers that he possesses moderate sexual vigour.

It is to be observed that in this instance the arrest of the disease had been brought about under conditions which might be considered unfavourable. The patient has married a young wife, and has continued in the active practice of a laborious occupation.

I have seen a good many similar cases in which ataxy has seemed to be arrested by treatment, but not many in which I could verify the result after so long a period.

Commentary CCXXXII.

Case illustrating the form of apoplexy which occurs in syphilis.

I had seen Mr. L. repeatedly in consultation with Dr. P., his usual medical attendant. He had suffered from a severe attack of syphilis which had not yielded so satisfactorily as usual to our remedies. He had taken mercury and iodides in several forms, and had, I believe, more than once, been slightly salivated. All traces of eruption had quite disappeared, but his right eye remained congested, and he had a good deal of circumorbital pain. He was much depressed in spirits in consequence of his malady. We had been obliged to keep him to his room in order to ensure the full influence of the mercury. I had not seen him for a month or two, when, on January 10th, I received an urgent message from Dr. P., asking me to visit Mr. L. at his house, as he had had a brain attack, and was not likely to live. I went and saw him the same evening. He had been quite insensible a whole day, and at the time of my visit could not be induced to show any sign of consciousness, excepting that he sometimes moved his right arm, and would draw up his legs when the soles were tickled. He was much flushed in the face, was perspiring freely, and breathing

at times with a slight stertor. I was told that his comatose condition had been deepening as the day went on. There was nothing in his symptoms to distinguish the case from one of ordinary hæmorrhagic apoplexy. His left limbs and the right side of his face were evidently paralysed. We could not use his pupils as symptoms, for his left eye had long been defective after an injury, and his right was suffering from iritis. Nor was it possible to excite his face to any muscular movements, and the statement that the right facial was paralysed rests on the fact that the face was somewhat drawn to the left side. There had been no incontinence of urine or fæces, nor had any spasmodic twitchings been observed. Under these circumstances it seemed important to take in detail the account of the seizure. His wife told us that on Saturday evening he had seemed better than usual, had seen some friends, and had sung a song. Excepting neuralgia in his right temple and around the right eye, he had not complained of headache. This neuralgia might be due solely to the iritis and inflammation of vitreous which were known to be present. On Saturday night after getting to bed, he complained of being chilly, and wished to get up for more clothes. His wife persuaded him to be quiet, but some hours later he aroused her, complaining that his left arm and foot were numb. After this he suddenly became, as his wife said, unable to use his tongue, and could not articulate clearly. On Saturday morning and through Sunday he seemed better, and could speak. He was not then hemiplegic, for he got out of bed and washed himself, and intended to come downstairs. He was, however, dissuaded from this. It was not until the morning of the day on which I saw him (Monday) that he became unconscious and hemiplegic. Thus it was clear that the symptoms had come on gradually and with intermissions. The final lapse into

insensibility had, however, occurred rather suddenly during the night. These facts seemed to favour the belief that the lesion was one of arterial thrombosis rather than of hæmorrhage. Our patient was a man of sixty-two years of age, who had, until the occurrence of the syphilis, enjoyed excellent health, and had never shown any indications of arterial disease.

A few days after the date to which these notes apply Mr. L. died, having never regained consciousness. Every effort was made to obtain an autopsy, but without success.

The case may be simply one of ordinary hæmorrhagic apoplexy, occurring as a mere coincidence in a patient under treatment for syphilis. I incline, however, to think it more probable that it was one of obstructive arterial disease in direct connection with the syphilis. The history of the intermitting onset of the symptoms is exactly what we meet with in arterial thrombosis, and unlike the sudden, complete, and permanent coma which denotes fatal hæmorrhage.

Commentary CCXXXIII.

The diseases of the eye which occur in connection with syphilis.

I have already mentioned in various parts of this work the various affections of the eye which are met with in connection with syphilis. It may, however, be convenient to give a brief categorical statement of them. I have, therefore, arranged them in the following list, placing them under the two headings of acquired and inherited disease :

A. *Acquired syphilis.*

1. Acute iritis ; usually symmetrical ; always in the secondary stage ; of fairly common occurrence.
2. Inflammation of the vitreous body ; often an accompaniment of iritis in its severe forms.

3. Diffuse keratitis.—This is very rare in connection with acquired syphilis. Only a few cases have as yet been observed. The most remarkable of these is the case recorded by Mr. Morton in the *Ophthalmic Hospital Journal*. It occurs in the secondary stage chiefly, if not exclusively.

4. Neuro-retinitis.—A primary inflammation of the ocular portion of the optic nerve and of the retina, attended by general haze, but without evidences of choked disc. It is usually seen in the secondary stage. It may affect only one eye or both eyes. Not common.

5. Scattered choroiditis ; gummata in the choroid ; choroiditis disseminata.—This affection is rare, and is seen only in the late secondary stage. It may be attended by neuro-retinitis, or may occur alone. Usually almost wholly confined to one eye.

6. Optic neuritis, with swollen or choked disc ; usually seen in the tertiary stage, and in association with meningeal gumma. It is rare. Affects both eyes at same time.

7. Serpiginous choroiditis.—This form (very rare) differs altogether from the disseminate form. Large patches of absorption are seen, which slowly spread at their edges.

8. Aquo-capsulitis.—A form of insidious and chronic iritis, of which the most conspicuous phenomena is the dotted condition of the posterior lamina of the cornea. It may be doubted whether recurring iritis and recurring irido-cyclitis have much claim to be considered as the results of syphilis. They are usually in association with gout.

B. *In connection with inherited syphilis* we have :

1. Acute iritis. It is very rare, and usually occurs at about the fourth month as one of the secondary class. More common in female infants

than in males. Very dangerous to sight. (See page 239.)

2. Interstitial keratitis. — Tolerably common; usually affects both eyes; often attended by slight iritis, and sometimes by choroiditis. Remarkable for its tendency to complete recovery in most cases.

3. Choroido-retinitis.—Usually chronic, and attended by atrophy; most frequent at periphery; may simulate the results of retinitis pigmentosa, or, on the other hand, may approach choroiditis disseminata.

4. Optic neuritis, followed by white atrophy; very rare and almost never recognised, excepting in the atrophic stage.

5. It is possible that a few rare cases of chronic iritis, irido-cyclitis, etc., occurring in growing persons, may be due to inherited taint. They are very exceptional in that association, and, as a rule, the inheritance of gout is rather to be suspected.

CHAPTER XV.

ON SECOND INFECTIONS OF SYPHILIS.

At page 16 I have stated my belief as regards second infections of syphilis, and it is unnecessary here to repeat my reasons for this opinion. I may, however, suitably illustrate the subject in more detail by citing a few cases. We may note that the older surgeons saw no difficulty in the creed that a man might have syphilis twice, or even many times. Then came the observation that second attacks were unusual, and that nearly all well-characterised chancres occurred in a virgin soil. On this followed the far too hasty generalisation that second attacks of syphilis were impossible. We are now again collecting the facts, and trying to ascertain

the limits of this possibility. I have seen a great many cases in which there could be not the slightest doubt that a second local affection took place, in a patient who had previously passed through a complete attack of syphilis. For the most part these have been cases in which an interval of some years had passed, in which much treatment had been employed, and the cure had seemed to be complete. But this has not been always the fact, and in one remarkable instance a gentleman showed me a chancre, which was well characterised, and which he made no doubt he had caught by contagion, although it was only nine months since a previous one, and he was not yet well rid of his secondary symptoms. In this instance it might be suspected that the second sore was the result of a relapsed or recurrent chancre. But, in reply to this, it was on a quite different part of the penis. I find recorded in the *Lancet* of 1850, by Mr. Allingham, a very extraordinary case, in which the second chancre occurred within six months of the first. Mr. Allingham had treated this patient early in February for an indurated sore, which was followed in May by a copper-coloured scaly eruption and ulcerated tonsils. These symptoms were cured by treatment, and the patient believed himself well. In July he came to Mr. Allingham again, with as perfect a specimen of Hunterian chancre as one could desire to see. It was not on the site of the original sore. At first this second sore appeared to yield easily to mercury, but I am informed by Mr. Allingham, who has kindly given me a report of what took place subsequent to his publication of the case, that the sore took six months to heal, in spite of mercury, and that it was followed by rupia and nodes. Fourteen years later the patient died insane.

I do not know what to make of these cases of

second chancres occurring before the first syphilis is cured. It is possible that, after all, they are only examples of relapsing, or perhaps satellite, sores. Both in Mr. Allingham's case and my own, however, the second sore occurred in ordinary course, after exposure to risk, and in each it assumed, not the features of a gumma, but those of a well-characterised Hunterian induration. These cases must stand apart from those in which, after a considerable period of health, a patient contracts a new chancre, and has as a consequence the ordinary symptoms of constitutional syphilis.

Commentary CCXXXIV.

A second attack of syphilis (twenty years after the first).

One of the best examples in proof of the possible occurrence of completed syphilis twice which I can produce is the following. Twenty-two years ago I attended Mr. C., then a medical student, for syphilis. He had it completely and severely, and it was eighteen months before we could leave off treatment. As he now expresses his recollection of it, "he went through everything." Six years later he married. Two children were born, neither of whom suffered in the least. He himself also remained quite well. In 1882 he was again under my care with a large inflamed chancre in his upper lip, glandular swellings under his jaw, a sore throat, and a copious erythematous eruption. He believed that he had scratched his lip on a vaccination tube, and thought that he might have accidentally inoculated it from a chancre afterwards. He was in the habit of often touching venereal sores. The symptoms again proved severe, and yielded only slowly to mercury. The second attack was in this case in no respect different from an original

one. Probably the cure of the first had been complete. Mr. C. is now again in good health.

Commentary CCXXXV.

Second (or third) attack of syphilis, followed by a very peculiar eruption (lupus psoriasis).

A gentleman, aged thirty-one, had a hard sore in 1877, which was followed by a copious eruption of what might have been called lupus psoriasis. It was symmetrical, in numerous patches, many of them very large. They healed in their centres and spread at their edges, leaving thin scars. Both sides of the trunk, all the limbs, and the whole face were affected. Of this he was quite freed in two months by treatment with iodide and mercury. It seemed certain that Mr. C. had had complete syphilis before. In 1866 he had a chancre followed by "a sore throat and eruption of pimples." In 1876 he had another sore, followed by a single coppery spot on the chest and sore gums. For this he was treated for six months. He had only left off treatment for another six months when his third sore occurred, followed by the severe eruption which I have just described.

It seems very possible that the mixed character of the eruption (symmetrical, and yet lupoid) was due to the fact that his tissues had previously been under the influence of the virus.

In the case of a Mr. M., an exactly similar eruption followed a phagedænic chancre, and left him severely scarred. The eruption in him was easily and permanently cured, and he is now, ten years later, married and in good health. He also had had a former attack of syphilis.

Commentary CCXXXVI.

Do second attacks mix themselves with former ones and produce peculiar modifications in the course of syphilis?

It may perhaps be possible that second infections of syphilis becoming constitutional, may so influence the tissues, which have not entirely rid themselves of the first, as to re-ignite the old disease. In this way tertiary phenomena consequent on the old may be mixed with secondary ones due to the new.

A gentleman, Mr. W., consulted me seven months after his contagion. He had had two hard sores, followed by a transitory eruption with sore throat and tongue, and afterwards by intense headaches. For these he had been treated irregularly by mercury and iodides. Exactly three months after the contagion, and at a time when he was temporarily free from symptoms and had left off treatment, he was seized with giddiness which ended in hemiplegia. The attack had the usual symptoms of arterial thrombosis from syphilis. It soon cleared off, but the arm was still a little stiff when he consulted me three months later. That he was really the subject of secondary syphilis from his recent sore was made certain by several relapses of rash and sore tongue, which were cured by mercury. The problem was whether the arterial disease was due to the recent infection, or to an old one of ten years back, or to the combined forces of the two. Ten years ago Mr. W. (now aged thirty), had, he said, been infected. So far as he could remember, nothing but warts formed, but a sore throat followed, which his doctor said was syphilitic. Excepting this sore throat, nothing either at the time or afterwards occurred. Up to the date of the second contagion he remained perfectly well. It may be doubted whether

on this first occasion he really had syphilis. If he had not, his case is an interesting example of disease of arteries in the early secondary stage (three months from contagion).

I have seen many other cases which suggested the belief that a second attack had re-excited what had been left by the former disease.

Mr. Berkeley Hill relates the case of a surgeon who had complete syphilis, which left him, for several years afterwards, liable to rheumatic pains which were always relieved by iodide. He ultimately got well, married, and had healthy children. Eleven years after the first syphilis he contracted a sore on his finger, which was attended by swollen glands, and continued open for several months. None of the ordinary secondary symptoms followed this, but several months later his health failed, and his spleen and liver enlarged, and he had jaundice with much pain in the loins. Iodides relieved him at first, but subsequently nothing suited but mercury. He relapsed when mercury was left off, and was cured again by its use. The case either proves in the most signal manner the usefulness of mercury in visceral affections which were not syphilitic, or else it probably illustrates the occurrence of visceral syphilis consequent on old syphilis re-excited by new contagion.*

Commentary CCXXXVII.

A second attack of syphilis thirty-five years after the first.

I may adduce the following case as at once a good example of the complete cure of syphilis (very common), and of a second infection, with the result of an indurated chancre of ordinary type. The interval

* See Hill and Cooper, p. 25.

between the two attacks was no less than thirty-five years :

Mr. F., when aged twenty-four, had a chancre and complete syphilis, for which he was treated by several surgeons, and finally by Sir Erasmus Wilson. As far as he can remember he was not more than six months under care, and after the secondary symptoms had disappeared he never had any reminders. When he was thirty-seven he married, and subsequently having lost his wife he married a second time. Both wives bore him healthy children, and he himself continued in excellent health. In 1885 (æt. 59), having had a quarrel with his wife, he took the man-like, but unmanly, revenge of visiting another woman. The exposure was on the 3rd of February, and was attended by laceration of the frænum and pain in the act. He came to me on the 25th with an inflamed, almost phagedænic, sore on the site of the laceration. There was no induration. I ordered iodoform only. A week later the sore was much less painful and less inflamed, but there was characteristic induration at its base, and I now ordered mercury. He had ascertained that his paramour was also under treatment at the time.

The induration in this case was characteristic and considerable, but it disappeared satisfactorily under treatment by mercury, and no constitutional symptoms occurred. He took mercury for six months or more.

Commentary CCXXXVIII.

On the proneness of second chancres to take on phagedæna.

I have often remarked that when those who have passed through syphilis some years ago contract fresh chancres, the sores are apt to take on phagedæna. An instance of this occurred in the case of an Egyptian,

who was admitted into the London Hospital under my care in 1880. This man gave a clear history of complete syphilis several years ago. He had, whilst in Paris, again exposed himself to risk about six weeks before he came to us. About a month after the exposure sores were noticed, and when, a fortnight later, he came under observation, a deep phagedænic ulcer was present.

I treated a young lawyer for a bad phagedænic sore, which had destroyed the greater part of his glans. He had passed through syphilis five years previously, and he had a periosteal gumma of his palate as a tertiary result of his former attack, at the same time that he was suffering from his fresh chancre on the penis. There was no doubt that this fresh sore was the consequence of contagion.

Commentary CCXXXIX.

A case in which a surgeon had a chancre on the thumb twice (with an interval of eight years).

Dr. P., of W., consulted me in March, 1884, with an ugly and unhealthy sore on the side of his thumb. It had been present more than two months, and he had a symmetrical scaly eruption, which was tending to ulcerate. The eruption had been out three weeks. There could be not the slightest doubt that the sore was a chancre and that he had a secondary rash. The evidence as to a former attack was the following: Eight years ago Dr. P. had had a sore, which involved the nail of one thumb, and was followed by very severe secondary symptoms. Under treatment he got quite well, and had no reminders. A whitlow which occurred on one finger two or three years ago did not take on any suspicious characters. Dr. P. was himself a most competent observer, but if

further corroboration be required as to the nature of the first attack, it may be stated that he was prescribed for by Mr. Prescott Hewitt and Mr. George Pollock, both of whom regarded the case as syphilis.

Commentary CCXL.

Severe symptoms of the tertiary class soon after a secondary infection.

A gentleman whom I saw with Dr. B. afforded an interesting example of the development of severe tertiary symptoms, apparently as the result of a second primary infection. At the date of my seeing him he was forty-three years of age. Twenty years previously he had passed through a severe attack of syphilis. The eruption had been plentiful and well marked. He was himself a surgeon, and could speak with confidence on this point. He was treated in Edinburgh, by the syphilisation process, which was then, temporarily, in some repute. During a period of about three months, one hundred and twenty inoculations were practised. At the end of that time he was free from symptoms, and he remained absolutely so for seventeen years. He then contracted another chancre, which became, after a time, phagedænic, and gave much trouble. He had neither sore throat nor eruption in connection with this second sore, but soon began to suffer from nodes on the skull and on the tibiæ, and had necrosis of part of the alveolus of his lower jaw. During this illness he took mercury and iodide of potassium, but not very regularly. His nodes recurred whenever he left the treatment off, and at the time that I saw him they were still quite definite. He had also developed symptoms of ophthalmoplegia externa, some of his eye muscles on both sides being paralysed. It is, of course, quite

possible that in this second attack the early use of specifics prevented the development of secondary symptoms.

Commentary CCXLI.

Very severe and prolonged syphilis ; final cure by inunction ; three years of good health ; a second sore, followed by severe rupia, lupus, etc.

An important case, bearing upon the question of second attacks, was brought under my notice by Mr. P., of D. The patient had had severe syphilis, followed by large rupial sores, eight years ago. After several years of interrupted treatment, he had been cured by inunction at Aix. The next year, as a precaution, he went to Aix again, and, although he had no symptoms, was freely salivated. From 1883 to early in 1886 he was quite free from symptoms. He then contracted a fresh sore. This sore never indurated, but it was troublesome, and remained open for six weeks. He took iodides, and used local applications. A month or two after it had healed, a severe rupial eruption made its appearance and resisted treatment. For this he was brought to me. He had many large sores on his shoulders, trunk, and face. Some were round and rupial ; others much larger, were irregular in form, and lupoid in their tendency to advance at their edges. He had also abscesses in his tongue, lumps in both testes, and he had failed in general health, with cough, night sweats, etc., to such an extent that his lungs had been suspected. Having regard to the long period of freedom from symptoms before his second sore, the persistence of this sore, and the date at which a second general eruption followed it, I could feel little doubt that a second infection had taken place. As in many other cases of second attacks, the symptoms

were not quite of the usual kind, and the eruption tended to the type of rupia lupus sooner than is observed in those which occur in patients who have never had the disease before.

Commentary CCXLII.

On the frequency with which second infections produce phagedænic chancres.

Whilst these pages have been passing through the press another very remarkable illustration of the occurrence of intractable phagedæna in a second chancre has come under my notice. I had attended Mr. A. B. for very troublesome ulcerations on his hand and in the throat four years ago. He had, in the first instance, been sent to me by Dr. Wilson Fox, and it was then two years after his first syphilis. He had had much treatment, and I was obliged to continue it for six months longer. The result was that he got quite well, and I saw nothing more of him for four years. He then came to me with a large part of his penis destroyed by phagedæna, and the urethra laid open in its floor for more than an inch. He told me that he had contracted a fresh chancre three months ago, and had been treated in the country for ulceration which it had been feared would destroy the entire organ. The phagedæna did not set in till a month after the sore had been contracted; vigorous treatment by caustics, iodoform, etc., had been pursued. In spite of these, and also of the use of constitutional remedies with opium, the ulceration for a long time progressed, and the patient was confined to his bed for a month or more. Phagedæna is, of course, common enough in sores occurring to those who have never had syphilis before, but my experience would lead me to believe that those who have so suffered are much more prone

to it. I believe that in not a few of the cases in which sores are reputed soft and non-infecting, these peculiarities, both active and negative, are consequent on the fact that the patient has had syphilis before. Plate 15 of Cullerier's "Atlas of Venereal Diseases" exhibits various forms of serpiginous and phagedænic ulceration. Some of these are described as complications of *soft* sores. Unfortunately no case histories are given. It is not possible, therefore, for the reader to know whether or not any constitutional phenomena attended them. As Dr. Bumstead, the translator of the work, was an ardent dualist, we may presume that by the term "soft" is meant non-infecting. I can only record my opinion, that patients who exhibited such ulcers as one there shown, had either had syphilis at some former period or were now recently infected. I have had no experience whatever of such conditions apart from true syphilis. The state of things in Fig. 8 is almost exactly similar to what happened in the case just described, and would lead to a strong suspicion that the patient had passed through syphilis at some former period, and was now the subject of a fresh contagion.

Commentary CCXLIII.

On the opinions of authors in reference to second attacks of syphilis.

It was in 1839 that Ricord first stated as the result of his experience that syphilis could not occur twice to the same person. In 1845 he expressed himself as admitting that exceptions might occur, but said that he had never as yet met with an unquestionable example. Subsequently he met with two which he regarded as conclusive. Diday, in 1863, wrote a valuable paper on the subject, and said that he had met with twenty cases; he arrived at

conclusions which have in the main been supported by subsequent observers. Amongst them we may note the following: That second attacks of syphilis, although not very rare, are yet exceptional to rule; that when they occur they prove that the patient presenting them had been cured of his previous attack so far as it was a blood disease, though, perhaps, not necessarily in respect to tertiary symptoms; that the character of the second attack will be influenced by the length of the period which has elapsed since the first, and perhaps also by its severity.

As to the occurrence of second attack being proof of the radical cure of the first, a fact insisted on by several authors (Ricord, Diday, Bumstead, etc.), I am obliged to feel some doubt. Probably a complete second attack in which the disease observes its usual stages, and produces all the usual phenomena, does prove that the individual so affected was free of his former taint. It is further probable that such attacks occur only to those who have passed through a prolonged period of health since their treatment for the first. This, however, does not amount to an assertion that second infections in those not yet cured may not add to the first disease and complicate its processes. We may perhaps group the cases of second local infections under the following heads:

First group. Those in which the local infection produces only an abortive chancre. These are numerous, and probably many chancres which are counted as "soft" owe their non-induration to the fact that the patient had had syphilis before. Non-indurated sores in syphilitic subjects are, I believe, sometimes very troublesome, and display unusual features. This class of cases needs more careful study. As a rule, no obvious constitutional phenomena result, but he would be rash who should venture to assert that the blood does not suffer in any way.

Second group. Cases differing from the preceding only in the fact that the primary lesion takes on all the characters of induration. These still differ from typical syphilis in the length of the period of incubation, the hardness being developed after a very short period of incubation. They also differ in that the inguinal glands do not enlarge (Diday). The induration is very variable in its duration, and may disappear very quickly. By these features, and by the fact that no constitutional symptoms follow, we separate the cases of this group from the two following. It is obvious, however, that there are possible fallacies. Inasmuch as treatment is almost always resorted to, it may easily be that to its influence rather than to non-infection of blood we ought to attribute the immunity from a general outbreak.

Third group. Cases in which the second infection develops a hard sore, which is followed by general symptoms of an exceptional kind, and assuming rather the features of those known as tertiary than secondary. These are the cases in which only a short interval has elapsed since the former attack. The constitutional symptoms may be of the nature of *rupia lupus*, or they may take the form of nodes.

Fourth group. Cases in which the disease is complete, and conforms in all respects to the type of an original attack. In all these, so far as I have observed, the period since the first attack has been very long, and the cure apparently very perfect.

A case which is conclusive as to the possibility of re-infection in the tertiary stage occurred to M. Bouley, who in 1851 attempted to syphilise a woman for the cure of severe tertiary symptoms. The result was the production of a primary chancre of the infecting kind, and an outbreak of secondary symptoms.

Amongst the authors who have recorded cases proving re-infection we have Gascoyen, Follin,

Bouley, Hardie, Boeck, and Caspary. An excellent summary of their evidence is given by Hill and Cooper. Mr. Gascoyen's paper, published in the *Medico-Chirurgical Transactions*, 1873, is especially valuable, since it deals with eleven cases which occurred under his own observation. In seven he had treated the patient for both attacks himself. In four of the eleven, an indurated sore was the only proof of re-infection, but in six there were also constitutional symptoms. My own experience fits very closely indeed with that of Mr. Gascoyen, and we have each of us recorded a single case in which a patient had syphilis three times.

CHAPTER XVI.

ON SATELLITE SORES.

IT is necessary, in reference to some of the phenomena of syphilis, to say a few words as to the nature of what are called satellite sores. A sore, or a local focus of inflammation, may be called a satellite when it occurs in proximity to another of larger size which existed before it. We see examples of satellites in various departments of clinical observation. In a case of cancerous tumour embedded in the mammary gland, nodules of scirrhus may be seen in the overlying skin. They do not occur over the other breast, nor on distant parts of the surface, but always near to the tumour. Thus, although they are not in any structural continuity with it, we cannot but believe that they are due to infection. In the case of common lupus, satellite growths near to the original one are constantly seen. No doubt, in both of these instances (and hundreds of others might be given),

the lymphatic spaces are the channels by which the cell transplantation is effected. In tertiary syphilitic affections of all kinds satellites are common. If a gumma is permitted to persist, it will not only increase in size by serpiginous spreading at its edge, but it will cause the infection of adjacent, but not actually continuous, structures. Thus other gummata of smaller size will be found as, in some sense, the offspring of the first. We easily see here a strong reason for the prompt treatment of the first, since, by its cure, we effect at the same time the prevention of others.

In secondary syphilis, when the whole blood and all the tissues are simultaneously contaminated, it is, perhaps, not probable that satellites are produced. At any rate it is impossible to tell what phenomena are of that nature, and what are due to the general blood poisoning.

In primary syphilis the phenomena under consideration are rare, but they become of great interest, and may sometimes lead to mistakes. As a rule a primary chancre remains single from first to last, and shows no tendency to infect adjacent parts. It is not, however, always so, and now and then we witness the development of a second sore near to the first, and at a considerable time after its appearance. The second sore may be indurated if the original one was so, but it will rarely attain the size of the first. There is always a doubt as to whether the second sore is due to spreading of the virus in lymphatic spaces under the surface, or to the inoculation of the virus on the surface itself. If the latter, then it is certain that it is now and then possible to inoculate at periods considerably subsequent to the development of the first sore.

I have several times seen satellite sores develop in the neighbourhood of chancres which had been

accidentally produced in parts distant from the genitals. In all such it was clear that they were quite different from the secondary phenomena, and were, as just described, the results of infection either from without or subcutaneously. They occur much more commonly, I think, when the original sore is inflamed and almost phagedænic, than under other conditions. I will describe, as an illustration, one of the best examples of satellites to a primary sore which I have ever seen.

A gentleman was sent to me from Wales who had been inoculated in his left lower eyelid. It was certain that he had not had a sore on his genitals, and the source of his contagion was known. A large and very unhealthy ulcer was the result. It had undermined borders, with a much thickened and pultaceous base. It resisted treatment both by specifics internally, and by iodoform and caustics externally, for a long time. It took on a condition of subacute phagedæna, and during four months of slow spreading the whole lower lid was destroyed. Although specifics were in vigorous use the whole time, yet a slight secondary eruption in the form of dusky, lichenoid spots, chiefly on the thighs, but to some extent in the face also, occurred. There was never any sore throat. The disease was finally, though after long delays, cured by the liberal use of mercurial inunction. I will now state the curious facts as to the satellites. About two months after the first sore had begun to develop, and after some specific treatment had been used, a sort of boil formed in the cheek, an inch and a half below the lower edge of the first sore. A fortnight later another of the same character formed near it. A little later still, three others formed in the skin of the scalp and forehead of the same side. All these developed into sores exactly like the original one, and differing from it only in being smaller. They all became very unhealthy, and proved most intractable

under treatment. Those on the cheek spread both widely and deeply, and almost coalesced with the original one. Those on the forehead were much smaller than those on the cheek, but they took just as long to heal, and did not finally close until, under very liberal use of mercury, the first sore did so. Now, on no other part of the body were there any sores in the least resembling the five which I have described as occurring on the same side of the head as, and in close proximity to, the original chancre.

It seems impossible not to believe that these sores were in some way due to infection from the first. It is possible that this infection was effected on the surface, for undoubtedly the sores were all in positions which might easily have been touched by the discharges. It is, however, not easily explicable on this hypothesis that no such sores occurred elsewhere, since the other side of the face and the hands were quite as likely to be inoculated as the scalp. It will, however, probably be safest in the present condition of our data to accept this as a not unlikely explanation of the mode of spreading. If we do so it follows that we must admit that a primary venereal sore may sometimes cause fresh ones by contagion on the same person at very considerable periods after its first appearance.

We must not, in the present state of knowledge, attempt to be too definite as to the mode by which satellites are produced. It may, perhaps, not be the same in all cases. In some it may be by infection through the lymphatic spaces in or under the skin, and in others by direct contagion of discharges on the surface. For convenience sake we count as satellites all sores which originate after the primary sore as direct results of its local influence. Thus in many cases in which soft sores are in the end multiple, most of them are satellites. When indurated sores are

multiple, it is usually as the result of simultaneous inoculation at several different spots.

In Plate 14 of Cullerier's Atlas, Fig. 9 seems to present a good example of a satellite sore, the original one being a chancre of the lower lip, and its attendant being situated a little above the chin. Unfortunately the letter-press gives only very defective details.

In the same Atlas, in Plate 12, we have what is described as a healed indurated chancre on the skin of the penis, and a second "large indurated chancre on the hypogastrium, produced by inoculation of the secretion of the former." There can be no question as to the induration of the second; and it is, therefore, either proof that a satellite may indurate, or else an instance of error as to its origin. It may have been the result of simultaneous contagion, in the first instance. In the diagnosis of satellites, careful attention must be paid to the dates of appearance of the sores. If they have appeared simultaneously or nearly so, then they are probably the result of simultaneous inoculation. In all true satellites there must be a definite and considerable interval between the two. As a rule the satellite closely resembles the original sore in all its features; but this is not quite invariable. I have seen in the case of a well-marked hard chancre of the lower lip, a satellite appear below it, after an interval of some weeks, which was papillary, and more like a modified condyloma than an indurated sore. Yet there were no condylomata or other form of secondary eruption elsewhere, and the patch in question was clearly a consequence of proximity.

CHAPTER XVII.

ON THE IMITATION BY SYPHILIS OF OTHER MALADIES.

IN a lecture published in 1879, I attempted to draw attention to the remarkable fact that all the various phenomena of disease due to syphilis are imitations of other, non-specific, type forms. Further experience and thought have confirmed me in the impression that this way of regarding the subject is one which is very helpful, not only for classification and nomenclature, but also as assisting towards a true insight as to syphilitic processes. We may thus use all the substantive names already employed for non-specific diseases, and simply add the adjective "syphilitic." Thus we have a syphilitic psoriasis, a syphilitic lichen, a syphilitic pemphigus, syphilitic keloid, syphilitic varioloid, syphilitic ataxy, syphilitic ophthalmoplegia, and a host of others. We have absolutely no malady which is peculiar to syphilis. The closeness of the imitation is often very remarkable. The syphilitic variola is perhaps the most striking example of this; the eruption which goes under this name is so exactly like ordinary variola that it has many times deceived the most skilled observers. I have repeatedly known cases of this kind admitted into small-pox hospitals, or treated in the closest isolation at their own homes, under a mistaken diagnosis. Nor are the resemblances to measles, roseola, or scarlet fever less accurate. Rubeolous and roseolous eruptions are very common in syphilis, whilst that resembling scarlet fever is as rare as that simulating variola. I have, however, often known patients treated for scarlet fever

who really had nothing but syphilis. A full recognition of this general fact will, I think, help us much in diagnosis. We are always to be on the alert and prepared to encounter maladies due to syphilis which resemble non-specific prototypes in the closest possible manner. Nearly always on careful inspection and inquiry some features will be disclosed which discriminate the syphilitic counterfeit from the real malady. In the case of the simulation of the exanthemata the duration of the eruption will usually decide the question. The syphilitic eruption does not go through its stages so quickly as the others, but lingers on long after they would in due course have disappeared. This discrepancy as to progress will usually decide the diagnosis. Other features will, however, in most cases help the decision. Certain minor features of peculiarity will commonly be observable in the specific maladies; thus they are often developed in a more irregular manner, and often two or more types of disease are mixed together in the same case. We must not, however, trust too much to this feature of polymorphism as distinctive of syphilitic eruptions; it is often absent in them, and it may be present in other diseases.

Not only are we justified in all cases, however exact may be the resemblance to a common and non-specific disease, in suspecting syphilis, but we must be on our guard as to the reverse phenomena. There are some few maladies of rare occurrence of which the syphilitic imitation is far more common than the original type. In such we may easily make the mistake of diagnosing syphilis with much confidence in cases where it is not present. The heaped conical crust of syphilitic rupia is, for instance, well known to all. It is not so widely known that there is a non-specific eruption which produces limpet-shell crusts exactly like those of syphilis, and most surgeons encountering

for the first time a good example of the "psoriasis rupoides" (of McAll Anderson) would confidently pronounce it to be specific.

The peculiar malady known as ophthalmoplegia externa, in which all the ocular nerves on both sides are affected, the upper lids droop, and the eyes are almost fixed, is in nearly all cases a sequel to syphilis. Some years ago I should have been inclined to say that I had never known the malady in any other connection. I have, however, recently seen two cases, one the result of injury, and the other not in association with any discoverable cause, which exactly, in every feature, resembled the syphilitic cases. A converse statement is true of another disorder of the nervous system apparently belonging to the same category as ophthalmoplegia. I refer to glosso-labio-laryngeal paralysis. In it, as in ophthalmoplegia, certain muscles become paralysed in groups; yet, whilst the one is almost always syphilitic, we very rarely meet with any close simulations of the other by syphilis.

Respecting some of the more common phenomena of syphilis, I feel sure that mistakes in diagnosis are very frequently made through not sufficiently recognising the closeness with which not only may syphilis resemble other maladies, but these in turn may resemble syphilis. There are cases in which after the fullest investigation of the facts the candid diagnostician will have to confess himself at fault. In the case of the tongue when superficial ulcerations with filmy, greyish-white edges form along its sides we, as a rule, diagnose syphilis. There are, however, cases exactly like the syphilitic ones in which I feel sure that no syphilis is present.

As to the throat, again, if the conditions are well pronounced, if, for instance, there be deep kidney-shaped ulcers in the tonsils with snail tracks near

their borders and on the pillars of the fauces, we, as a rule, feel justified in confidently pronouncing the disease to be syphilitic. If the sore throat persists in this condition for some weeks or months our confidence is increased. No forms of sore throat presenting these features have as yet been described in connection with any other cause. I have, however, during the last few years seen several examples of chronic sore throat exactly like that of secondary syphilis, in which the history was wholly absent, and in which no other phenomena ever occurred to support such a diagnosis. Two cases especially have stamped themselves on my memory, one of them in a young man, and the other in an unmarried lady of good family, concerning which what I have said is true. In both, in the first instance, I was inclined to join in the diagnosis previously given with great confidence by very competent observers, that the throat was syphilitic, but in both after a time I had to abandon that suspicion.

In the paper to which I have referred I have quoted cases of syphilitic simulations of rodent cancer. Of this form of cancer of the face, the rolled sinuous edge, of even height and semitransparent aspect, is the peculiar feature. Now this edge may be produced in great perfection in ulcers which are really syphilitic. When this is done it is a most remarkable fact that it occurs only on those parts where the rodent ulcer is met with, that is, on the face. I have seen several syphilitic rodents which I could not diagnose at all until the result of specific treatment cleared away all doubt. Of one of these I had a portrait taken in order to illustrate this special point.

The statement just made, that the syphilitic imitation occurs only in the parts capable of producing the true rodent, may serve as affording a suggestion,

or explanation, of syphilitic simulation in general ; it is probably due to the fact that precisely the same anatomical structures are involved in the inflammation. The inflammation or new growth having once begun, and having taken its peculiarities from the structure in which it started, keeps to its type afterwards. Thus, syphilitic variola no doubt affects the identical gland structures which are involved in common variola, and hence the identity of appearance in the umblicated pustule produced. In measles we must suppose a vaso-motor paralysis of certain leashes of capillaries, and hence, the crescentic patches of dusky erythema. These leashes exist ready to receive a like injury from other morbid causes, and such a cause syphilis in its turn supplies. We well know that copaiba and other drugs may produce the same effect. Possibly those who show syphilitic rubeola, or syphilitic variola, are precisely those in whom, if the true exanthem were to occur, the eruption would be displayed in great perfection and abundance. Thus the syphilitic poison may be regarded as bringing to light a latent peculiarity of structure. This explanation may fit well with the cases of syphilitic psoriasis and rupia. Those who get a scaly syphilitic rash are possibly those who, if brought under the influence of suitable causes, might have developed common psoriasis ; and those who get rupia may be those who were predisposed to pemphigus. Perhaps in the treatment of syphilitic rupia we ought to combine arsenic with our specifics.

Since the assertion is that syphilis may imitate almost every possible type-form of derangement of health due to other causes, it would be obviously a lengthy and tedious matter to attempt to describe all its varieties, and to discriminate them from others due to common causes. It must suffice to impress upon the reader's mind that when a patient is known

to have had syphilis it is wise to suspect a taint of that disease in all anomalous maladies from which he may afterwards suffer. It will be very seldom indeed that any harm is done by a mild course of mercury, and very often the suspicion will be confirmed and a cure effected, at the same time.

It is especially in the case of the syphilitic skin eruptions that I am reluctant to attempt any enumeration of their various forms. Their modifications are almost endless, and it must suffice to say that no single form has been described by dermatologists which may not be very closely simulated by syphilis. This, however, is now tolerably well recognised, and it is not in this department of our subject that mistakes in this direction are likely to occur. It is more common, in the case of skin diseases, for those which are not syphilitic to be regarded as such, both by the patient and surgeon, than for the converse error.

In certain other forms of disease not affecting the skin, the diagnosis of syphilis may easily be overlooked. Thus it may, especially in middle-aged or elderly patients, closely simulate generalised rheumatism of the subacute type, or it may be treated as fever, or as the results of blood poisoning from defective drainage. Dr. Thomas Reade, to whom we owe so much for the earliest observations on syphilitic affections of the nervous system, asserts that occasionally the fever of syphilis may assume the type of a quotidian ague. The case which he quotes from his own practice is one in which the malarious poison was at work during the secondary stage of syphilis, and no doubt caused the ague. The remarkable feature was that the ague did not yield to quinine or arsenic, but was cured at once when mercury was used. It does not prove that syphilis alone can produce ague. Cases have, however, been recorded by M. Zambaco* (and

* "Des affections nerveuses syphilitiques." Paris, 1862.

quoted by Dr. Reade), in which the ague was apparently due to the syphilis only, the patient having never been exposed in any way to the influence of malaria. In these cases, the lesson of which is very important, quinine wholly failed to cure, and mercury promptly succeeded.

It is common enough for violent neuralgia to be simulated, or, perhaps I ought to say, produced by syphilis.

I have described in some detail at page 463 a case in which a man under treatment for secondary syphilis which hung about him, became the subject of an illness closely resembling apoplexy. Death resulted, but unfortunately no post-mortem was obtained, and we cannot say for certain whether there was arterial thrombosis with secondary softening, or hæmorrhage. In what we may for convenience call the syphilitic fit or syphilitic apoplexy, all the consequences of common apoplexy may often be observed. There is the same persisting hemiplegia, and the same tendency to coma in the early stage. The local cause is, however, usually different, for in syphilis the paralysis is due to the obstruction of an artery, whilst in the other form this is usually a rupture of vessel and extravasation. In connection with this difference in local cause, we may point out an important difference in the early symptoms. In ordinary hæmorrhagic apoplexy the development of symptoms is usually more sudden, and much sooner complete than in the syphilitic imitation of it. In cases of arterial thrombosis the stoppage of the blood current is not often complete at once. Often for a time a diminished stream may struggle past the obstacle and only after a certain period does the occlusion become absolute. During this interval there will usually be variable symptoms. The patient may feel numbness or tingling in the arm or leg, which may pass off and then recur.

This incompleteness may be present for an hour or more, or even for a day or two, before either the coma or hemiplegia is fully developed. This singular development of symptoms was remarkably shown in the case to which I have referred, the patient having been able after his first symptoms to get out of bed and wash himself, before he finally became comatose.

Dr. Hughlings Jackson has given us very valuable data by which to distinguish the epilepsy, which is due to peripheral irritation, as that of syphilis usually is, from that of the more typical kind. In Jacksonian epilepsy the spasms usually begin in one limb only, and there is an interval observed before the patient loses consciousness. Although, however, the epilepsy which is due to syphilis usually presents peculiarities which permit of its recognition, yet it will be wise in all cases in which epilepsy is developed in those who are the subjects of syphilitic taint to employ specifics. It is very possible that in many, such a syphilitic lesion takes only a half share in the production of the disease, there being at the same time the usual personal proclivity.

The remarks just made apply strongly to all varieties of paraplegic affection which occur in those who have suffered from syphilis. Paraplegia from syphilis is very common, and may occur at very different stages of the disease. I have quoted several cases illustrating its varieties, and it must be sufficient here to remark that in all suspicious cases the patient must be allowed the advantage of full and prompt mercurial treatment.

CHAPTER XVIII.

ON SYPHILIS IN ITS RELATION TO MARRIAGE.

THE question as to how soon, after syphilis, a man or woman may be permitted to marry, is one which it is extremely difficult to answer. A due regard to the interests of social life warns us against extreme opinions. Whilst we must endeavour faithfully to discharge our duty as skilled advisers of those who consult us, we must avoid the position of alarmists. Obviously it is a safe course as a simple matter of medical science, to tell one who has had syphilis that there is always risk, and that marriage is to be for ever avoided. Such a course, or anything near it, would, however, prevent thousands of happy marriages; would swell the ranks of those who adopt concubinage instead of wedlock, and whilst it would reduce the sum of human happiness, would probably not in the least diminish the prevalence of syphilis. We must, therefore, seek to be reasonable and moderate in our recommendations. Until quite recently the period of waiting, which it was customary to enforce, was exceedingly short, and according to present opinions most inadequate. I have seen a certificate signed by a president of the College of Surgeons authorising a man to marry, and justifying the permission by alleging that all secondary symptoms had disappeared. As a matter of fact a mercurial course which had been very successful was just over, and exactly three months had elapsed from the date of the chancre. Of late some authorities have insisted on periods which seem to me unreasonably long, and

have caused an amount of alarm which is, I think, much to be regretted.

My own rule, for the last twenty years, has been to insist on an interval of two full years between the date of contracting the disease and marriage. However satisfactory the progress of the case, and however absolute may have been the absence of symptoms during the latter three-fourths of this period, I have never relaxed this rule. I am cognisant of the consequences in a very large number of marriages which have taken place, with my professional permission, after this interval, and with the single exception of the case which is the subject of Commentary 178, I have never known of any hurt to either wife or child. As a rule, then, to which there are very few exceptions, I think that we may hold that, after two years have elapsed, there is no risk of hereditary transmission. I am speaking of patients who have been under careful mercurial treatment. Most of my own patients have taken mercury in small doses for six or eight months continuously in the first instance, and often for several short periods subsequently. Many patients who were wishful to marry as early as possible, I have advised to continue mercury as a precaution through the whole of the two years. Although, however, I have myself had but few opportunities for observation in cases not treated by mercury, yet I am quite prepared to believe that the mere lapse of time is, in most cases, a very efficient cure for syphilis so far as its contagious properties are concerned. The virus appears to die out, although, as daily recurring facts prove, the individual's own liability to suffer from tertiary symptoms is by no means passed. Probably in a large majority of cases the risk of transmission to children is over long before the end of two years. Were it not so it must be supposed that our predecessors would have much oftener found their authorisations

falsified than would appear to have been the case. In the present work many cases have been adduced in which children born within very short periods of syphilis in one or both of the parents, yet escaped all evidence of taint. That tertiary symptoms are not heritable I hold to be well established, and also that they are not contagious between the parties themselves. Whilst of opinion that two years is a reasonably long interval between syphilis and marriage, I am by no means in a position to deny that the transmission of taint from parent to offspring may appear to continue through far longer periods. The cases in which it does so are, however, so exceptional, that they need not, I think, influence our rule. They are to be explained probably in several different ways. In some instances (it may be in almost all) a second or even a third introduction of the virus has occurred. Many patients who may not care to conceal the fact that syphilis has occurred before marriage, may yet persistently disavow any exposure to it since. The first syphilis is, they think, quite sufficient to guide the surgeon to correct treatment, and that to make any subsequent and more discreditable confession is not needful. In other cases the transmission which was from the father in the first instance is from the mother in later ones, whilst in her the disease is of more recent origin. Thus a man who is nearly at the end of his two years' probation, marries and begets a syphilitic fœtus. His wife receives the virus, and she becomes afterwards the source from which their children receive it.

Of almost all cases in which transmission to offspring persists for very long periods, it is probably true that the treatment has been inefficient. This remark especially applies to wives who may have received the disease from their husbands. In many of such cases the treatment is very insufficient or

almost nothing. The husband being very anxious to avoid arousing his wife's suspicions, may allow her, if the symptoms are not troublesome, to go on without advice, or if advice be obtained, may be very willing to leave off all treatment so soon as the obvious troubles have been made to disappear. Speaking generally, women are far less efficiently treated for syphilis than are men, and married women are, of all, the most likely to be neglected. Men know more about the malady and are far more willing to submit to protracted treatment. By remembering this we may perhaps explain the general impression that the danger of transmission to children lasts longer in the case of mothers than of fathers. We must, then, in giving an opinion in any individual case in which the question is asked, "May I marry?" put aside the facts supplied by isolated and exceptional cases, and base our opinions upon general results. There are so many fallacies in the exceptional cases that we are quite justified in declining to allow their apparent lessons to influence our decision under other and very different circumstances. If a patient has been well treated, if no tendency to recurrence of the chancre has been shown, I believe that the surgeon is fully justified in permitting marriage at the end of two years, and that he may confidently assure his patient that under such conditions the risk is infinitely small.

I have been speaking hitherto of cases in which the person wishing to marry has been the subject of undoubted syphilis. There are, however, cases in which the diagnosis of the original sore may have been doubtful. Thus it may have been questionable whether the sore was only an abrasion, or a chancreoid, or herpetic, and the patient may wish for permission to marry within a very short period of its occurrence. I find that my late valued friend, Dr. Bumstead, lays it down that marriage should not take place until at

“least three weeks after the disappearance of such an excoriation.” I confess that I should incline to insist upon a far longer period.

Cases of relapsing chancre and of herpes, after syphilis, present us with great difficulties. I have known several cases in which married men were liable to the recurrent chancre with the most typical induration, and in which their wives never suffered. I should, however, be very unwilling to consent to marriage in any one liable to this occurrence unless at least double the period I have recommended had elapsed. Herpes of the penis is probably not contagious, and the liability to it ought not, perhaps, to interfere with the permission to marry. Its subjects may, however, be suitably warned most carefully to avoid intercourse whilst any traces of herpetic sores are present.

CHAPTER XIX.

ON THE MODE OF INVESTIGATING SYPHILITIC CASES AND OF RECORDING THEIR HISTORIES.

HAVING insisted so strongly and so repeatedly upon the almost insuperable difficulties which occasionally beset the recognition of syphilis, it may be well to add a short chapter on the best method of investigating the patient's history when it is suspected. In many, if not in most, cases of real difficulty it is to the history of past events that we must look for the clearing away of doubts. That we cannot trust the statements of our patients is well known. These statements may be erroneous either through ignorance, or from unwillingness to confess the truth. It is therefore always well to begin by making indirect inquiries before putting the direct question. If once

the latter has been asked, the patient is on his guard, and may conceal collateral facts as well. Before putting the direct question it is always well to prepare the way by explaining the importance of arriving at the truth, and giving an assurance of absolute secrecy. The replies made may be various. In the first place, a man may answer at once in the affirmative, and yet when you come to detail, it may seem very doubtful whether the sore was an infecting one. If, however, the conditions present are at all strongly suspicious, the admission of any kind of sore may be held to be almost sufficient. It is certain that many infecting sores are never followed by any recognised phenomena of the secondary group. It is also certain that infecting sores are often attended by suppurating buboes, that they often leave deep scars, and that they are often pronounced to be "soft" by the surgeon who treats them. If the patient admits having been exposed to risk, and whilst denying having ever had any external sore, admits having had clap, we must keep in mind that there are cases in which, while a discharge is treated as only a gonorrhœa it yet proves introductory to constitutional syphilis. The symptoms of urethral chancre are very vague. Or, lastly, if exposure is admitted, but all infection, whether gonorrhœal or chanceros, denied, we must still keep in mind that in a few undoubted cases, honestly and carefully observed, the initial lesion of syphilis has been wholly wanting. We come then to the conclusion that if a patient confesses to exposure, syphilis is possible.

The absolute denial of exposure must be taken as of very different meaning in different cases. In all young, unmarried and inexperienced persons, and especially in women, such denials must be allowed no weight whatever. If, however, the denial is made in the investigation of tertiary symptoms, in a middle-aged person, accustomed to the ways of the world,

and if it is made to a stranger, and not to his family medical man, then it must receive some attention. The interest in truth-speaking is then obvious, and my impression is strong that when we are told explicitly by such patients, "I never in my life had intercourse with any one but my own wife, and never had any kind of sore in any part of my body," we may generally put aside the suspicion of syphilis. Exceptions, no doubt, occur; but I imagine that they are very rare. The symptoms which are of chief importance as corroborating the history of a primary sore are, of course, sore throat, and rash.

If a patient has at any period of his life had a sore of any kind on the genitals, followed, two months later, by an eruption and sore throat, we may, without much risk of error, assume that he has had "complete syphilis." Careful inquiry should be made as to how long the sore lasted, and whether the eruption and sore throat were at the time recognised as specific. The fact of complete syphilis having been established, it becomes next of importance to get a clear statement as to treatment and sequelæ. I find the most convenient form for this purpose to be to use a long, ruled sheet of paper; which may be so divided that three lines are allotted to every year. The patient is made to go over every year which has elapsed since his primary illness, and to state what he can remember as to his health in it. The schedule when filled up has the advantage that as time is represented by space, it is very easy to see the facts clearly. An example of what I describe will best illustrate the plan recommended, and the two appended cases (real ones) are given for that object. In the first it was of importance to state the events of the first year in detail, and the space is accordingly divided in months. In the second the division is in years, the case being a much longer one. In cases in which it is

wished to display the facts as to incubation periods, etc., it is convenient to subdivide in weeks. At the foot of the scheduled statement of the case are to be placed any comments that may be necessary.

The occurrence or non-occurrence of "reminders" is, of course, of considerable importance in substantiating the diagnosis of syphilis, and these are brought prominently out in the methodic statement which I have advised.

ILLUSTRATION OF MODE OF REPORTING (CASE I.)

Name: H—— B——. Date of Observation: November, 1886.

ABSTRACT OF CASE.—*Raised rupia-lupoid patches in the face and limbs following rupia, and apparently produced (or rather characterised) by the iodide of potassium.*

Date.	Details.
1885. Nov. 26 .	Sore noticed on frænum. Iodoform used.
December	On 29th, eruption on arms ; little red spots. Mercury being used. Liq. hydr. bichl.
1886. January .	Eruption still out. Erythematous and lichenoid.
February	The eruption was changing its character, and becoming rupial. He was still taking mercury. Sore healed.
March .	Eruption disappearing, but not without relapses.

Date.	Details.
April . .	Iodide of potassium substituted for mercury for two weeks; after two weeks mercury again given.
May . .	Ulcers began to form; some round as if punched out, and with overhanging edges.
June . .	Ulcers still present; only two on the face, one on forehead and one on nose.
July . .	Taking mercury. Eruption still ulcerating.
August .	Taking mercury. Eruption still ulcerating.
September	Taking mercury. Eruption still rupial but without thickening. Began iodide after consultation with Mr. T. At this time only two or three rupial ulcers on face.
October .	Was taking iodide. The effect of the iodide was to heal the ulcers. Went to London Hospital and saw Mr. T. and my son.
November	Had been taking iodide six weeks. Went to Mr. W., who advised mercury. The eruption had enlarged in character and become thick and bossy. It had much extended.
December	Taking iodide in very large doses (gr.xx. ter. die). Eruption still developing its peculiar features. It covers most of the face.

Date.	Details.
1887. January .	Present date. He came to me for first time. Great bossy patches over face. Much thickening at edges and depression in centres. Worse on face than on trunk, but a few on limbs (only two or three). It was rupial before.

Remarks.—The peculiarity in this case was the remarkable manner in which the rupial ulcerations took on bossy thickening, under the influence of the iodide of potassium. Very great disfigurement resulted, with great reduction of health, and had the iodide not been left off, a fatal result might easily have followed. The bossy masses much resembled those shown in the New Sydenham Society's Atlas as the result of bromide. They persisted and even increased for a considerable time after the iodide was left off.

ILLUSTRATION OF MODE OF REPORTING (CASE II.)

Name: W—— R——. *Date of Observation:* Oct., 1885.

ABSTRACT.—*Second attack of syphilis with phagedæna of the sore. On both occasions rupial eruptions.*

Age.	Date.	Details.
22	1878	A chancre on glans in December. It did not begin till a month after contagion. It ulcerated and destroyed the frænum and a large part of the glans.
23	1879	Iritis and a slight rash two or three months after the chancre. Had inunction treatment for a short time. In early part of year still under treatment.
24	1880	In West Indies. Good health as regards syphilis.
25	1881	In East Indies. Good health as regards syphilis.

Age.	Date.	Details.
26	1882	In East Indies. Good health as regards syphilis.
27	1883	In East Indies. Good health as regards syphilis.
28	1884	In much damaged health from malaria. <i>In December caught another sore</i> not indurated, concealed under prepuce; became phagedænic and destroyed the whole prepuce. It was treated by caustics only.
29	1885	In April ulceration in mouth. Pain behind sternum. In May a symmetrical rupial and lupoid eruption. Mercury and iodide of potassium. Came under my care for first time.
30	1886	Treated by iodides and mercury internally, and iodol ointment. Rapid improvement. The eruption has left large scars.
31	1887	Remains quite well, and has needed no treatment for nine months.

Additional facts.—There was no proof that mercury had ever disagreed, but it caused absorption of the gums and loosened his teeth.

The rupial spots on the trunk were symmetrically placed, not very numerous, and were still open ulcers when he came to me, October 10th, 1885. His whole back was covered by acne, the pustules of which are large and dusky. He had acne before the syphilis.

On his cheeks in front of the ears, and involving the ears, were large lupoid patches spreading at their edges and leaving large scars. Thus the appropriateness of the name rupia-lupus was well illustrated.

It is impossible to warn the young practitioner too strongly against over-confidence in the diagnosis of syphilis. If we regard the more common phenomena of the disease (eruptions on the skin, sore throat, sores on the tongue, nodes, etc.) it is quite safe to assert of them all that no peculiarities are ever presented which, taken alone, and in opposition to the rest of the clinical evidence, justify a positive opinion. As regards eruptions, the colour, whether dusky or coppery, the polymorphism, the arrangement, and initial lesion, etc., may each be most closely simulated by eruptions which are not specific. It is only by the history and the concomitant phenomena that a confident diagnosis can be justified. In saying this I do not wish to imply that the diagnosis of syphilitic eruptions is in a general way difficult, but rather that there are rare cases in which it is impossible. In most instances the ordinary and well-known signs suffice to justify a strong opinion, but if under such circumstances we encounter strong negative evidence we must be willing to admit a doubt. Much unhappiness may be caused by too great confidence, and great discredit may subsequently accrue to the surgeon. I will mention a few of the conditions which, occurring in connection with non-specific causes, yet often present a most deceptive similarity to syphilis.

The eruptions which in Commentary No. 125 I have claimed as "vest rashes," are often of a dull copper tint, and so exactly like syphilis that no one, however skilled, would be able to diagnose them except in connection with the history.

There is an eruption known as *psoriasis rupoides*, well described by Dr. McAll Anderson, in which limpet-shell crusts are formed over dull-red, copper-tinted areas, which exactly resembles the aspect of a syphilide.

The affections described by authors under the

name of lichen ruber, and lichen planus, often look most deceptively like syphilis.

In Commentary No. 175, on page 364, I have mentioned cases of local periostitis exactly simulating syphilitic nodes.

On the tongue filmy white sores may form on the borders, with oedema and indentations, exactly like syphilis. Although superficial sclerosis, with its leucomata of various kinds, is in the majority of cases a sequel of syphilis, yet there are cases in which it is not so, and they are indistinguishable from the others. The white patches in the linings of the cheeks, and at the oral commissures, which formerly were by many thought to be almost pathognomonic of syphilis, are now recognised as being, in the majority of cases, due to smoking only.

The chronic forms of psoriasis palmaris are often not syphilitic, while they look almost exactly like those which are so.

There is a peculiar form of multiple ulceration of the mucous membranc of the lips, cheeks, palate, and gums which occurs to middle-aged, or elderly, men, which suggests syphilis to all observers at first sight, but which is certainly not in that connection. It is curable by opium, and is made worse by iodides and mercury. To make the diagnosis still more difficult it is often attended by eruptions on the hands and feet, and by disease of the nails.

In feeble young women, or even in girls, ulcers may form on the legs, which have undermined edges and dusky borders, and which nothing but the history can enable us to diagnose from open gummata. Although most common in women, such sores are occasionally seen also in men.

Most surgeons of experience will believe themselves fully able to recognise the sore throat of secondary syphilis, with its symmetrical ulcers in

the tonsils, its snail tracks and abrasions in the fauces and palate, etc. There are, however, I am convinced, throats which have no relation to syphilis in which all these features are reproduced with great accuracy. I have seen two or three such during the last few years, in which surgeons, equally well qualified to judge, differed in opinion, some pronouncing with the utmost confidence that the throat was syphilis, and others taking a different view.

It is well known that there are malformations of teeth, both of the temporary and permanent sets, in which a very close resemblance to the central notch in the upper central incisors is produced, and which yet are not indicative of syphilis. I have never seen the resemblance exact, but often sufficiently so to make diagnosis impossible without the aid of the concomitant phenomena.

There are conditions of choroiditis, both of the serpiginous and disseminate form, which are not specific, but respecting which I know of no features which enable us to distinguish them. I do not know of any cases of close simulation of interstitial keratitis (that is, affecting both eyes, producing a marked ground-glass condition, running a slow course, and finally clearing completely) which were not really syphilitic. Acting, however, on the general rule that syphilis has no lesions, or type forms of disease, which are peculiar to itself, I am quite prepared to expect cases of non-syphilitic diffuse symmetrical keratitis.

CHAPTER XX

OPINIONS OF AUTHORS AS TO THE TREATMENT OF
SYPHILIS BY MERCURY.

IN what I have hitherto written as to the treatment of syphilis it has been assumed that all are agreed that specifics ought to be used, and that the question simply is as to mode of employment and dose. Lest we should proceed too fast and too confidently in this direction it may be well to recur briefly to the opinions and teaching of the non-mercurialist school. That school has at the present very few adherents of note. Scotland has for long been its stronghold, and there it still maintains a certain sway. With the exception, however, of a few Edinburgh surgeons, I should be at a loss to name an anti-mercurialist of note either at home or abroad. The unanimity of opinion in all our standard books is very remarkable. Great progress has been made in this direction during the last quarter of the century, and I cannot but think that the introduction of the method by long-continued small doses has had a great influence in assisting it. That I may impartially represent the opinions which were but very recently prevalent, I venture to extract a page from the excellent work on medicine, published by Dr. Aitken.* I quote from the second edition, under date 1863, p. 719.

“There are remarkable variations in opinion as to its influence in curing syphilis. At one time discussion ran high regarding its use; and, of course, extreme statements were made on both sides, while the

* Dr. Aitken : “The Science and Practice of Medicine,” vol. i.

facts adduced never warranted the extreme conclusions. Consequently at one time mercury has been regarded as capable of absolutely preventing the constitutional affection. At another time it has been accused of giving to the syphilitic virus the impulse which sets up the constitutional affection. It is now quite certain, however, that mercury administered continuously to the extent of salivation, or approaching it, exerts a poisonous influence, and produces constitutional effects very similar to those produced by syphilis (Graves); and Hunter himself says, 'new diseases arise from mercury alone;' while it cannot be doubted that in cases in which mercury has been freely given we are never certain that secondary symptoms may not supervene. Bärensprung, of Berlin, during his most extensive experience has come to the conclusion that syphilis not only can be cured without mercury, but he avows that under its use the disease is often rendered latent for months and years, and its complete cure delayed. He is of opinion that mercury deteriorates the constitution, and favours the development of destructive local affections. The non-mercurial treatment is slower, but surer; starvation and Zitmann's decoction being the means he employs. He believes that the proportion of cases of constitutional syphilis to those of chancre has been greatly diminished since mercurial treatment has been discontinued. Herman has come to similar conclusions from his experience in the syphilitic wards of the Vienna Infirmary. He believes that the non-mercurial treatment is much more speedy and successful than the mercurial, that no relapses occur, and that cutaneous eruption is much more frequent and severe in patients who have taken mercury. The experience of Diday is less decided. He states that mercury cannot now be said to cure syphilis radically, so as to render relapse impossible. Its warmest advocates do

not in the present day claim more for it than the power of delaying only the appearance of certain other lesions. He imputes to it positively, and on sufficient clinical evidence, the following disadvantages: (1) it tends to render the primary ulcer phagedænic; (2) it tends to induce stomatitis and necrosis of the alveolar borders; (3) it produces an acute affection of the gastro-intestinal mucous membrane and dyspepsia; (4) it brings on trembling of the extremities, apoplexy, and insanity. All of these results he has seen supervene; even then the treatment by mercury was superintended and directed by the most competent and attentive practitioners.

“Numerous examples may be seen in museums, which show that the poisonous effects of mercury produce the worse lesions of the two; and when combined with the syphilitic virus, the worst of all. In the extreme of syphilitic infection it ought never to be forgotten that a specific chlorosis results from syphilis, amounting to anæmia, and that mercury will bring about a similar anæmia, while numerous instances are quoted by authors of the poisonous effects of mercury, inducing lesions similar to those of syphilis. Both kinds of treatment (mercurial and non-mercurial) have been extensively tried since 1816, and formal experiments have been organised on the subject, namely, first, in 1822, in Sweden, by royal command, when reports were annually furnished from civil and military hospitals as to trials of the two methods; in the second place, Dr. Fricke experimented in the Hamburg General Hospital, and published his results in 1828; while thirdly in 1833 the French Council of Health published a report on the subject.

“From all these accounts more than 80,000 cases were submitted to experiment, and they go to show that syphilis is cured in a shorter time, and with less

chance of constitutional effects, by the simple than by the mercurial treatment.

“It is extremely interesting and gratifying to be able to say that long before any of these reports were initiated, the surgeons of the British army perceived the ravages of the combined poisons of mercury and syphilis, and had the boldness to declare themselves against the system of treatment with mercury, and to introduce the milder measure of non-mercurial treatment. The credit of this improvement is mainly due (1) to Mr. Ferguson, who practised it during the Peninsular wars ;* (2) to Mr. Rose, of the Coldstream Guards, at the same time, but independently of Mr. Ferguson ; (3) to Dr. John Thomson, the first professor of military surgery, who, by lectures and writings, was mainly influential in convincing Scotch medical men of the evil effects of mercury in venereal diseases.”

It is strange indeed, in the light of the experience of to-day, to read statements such as those just quoted, and to find names of the highest authority, and statistics collected on the largest scale, arrayed in support of opinions which seem to us so erroneous. A misgiving comes over the mind that we are after all treating our patients capriciously, and in defiance of the verdict of the past.

I cannot, however, for one moment believe that such is the case. The fact is, that the method of administration has changed, and that we now no longer use the drug in the large and injurious doses which were formerly given. The statistics of the past were collected in respect to cases which had been treated by courses of a few weeks, and by the rapid induction of ptyalism. We now avoid all constitutional signs of the influence of the drug, and are content to see the symptoms fade away, but we continue the

* *Med.-Chir. Trans.*, vol. iv.

administration through very long periods. Thus, so far from the general health being injured, it is usually improved, and of maladies due to the mercury we know almost nothing. That our patients get easily and permanently well as regards the secondary symptoms, is unquestionable ; indeed, if the course be commenced early enough, these may usually be wholly prevented. It is to be admitted that the degree of immunity obtained as regards tertiaries is a question needing further investigation. But respecting this also, I believe that we may regard the modern method of the use of mercury in syphilis with considerable confidence.

CHAPTER XXI.

ON THE DIAGNOSIS BETWEEN CANCER AND SYPHILIS.

THERE are many conditions under which the diagnosis between syphilis and cancer becomes a matter of great importance, and it may be of extreme difficulty. Instead of entering upon detail upon this subject in connection with each special organ and part, it may be convenient to here introduce a few general statements.

In the first place, it is to be clearly understood that even if the previous occurrence of syphilis does not to some extent predispose to cancer, it most certainly in no degree prevents it ; and thus it comes to be the fact that a clear history of syphilitic antecedents, so far from giving any help in the diagnosis, may easily, unless great care be taken, become the means of leading us into error. Both patient and surgeon when cognisant of this history, may be only too willing to believe that the existing malady is solely of a

specific nature. Mistakes of this kind are of almost daily occurrence in connection with chronic diseases of the tongue. The statistics are wholly wanting as yet which would enable us to give any confident opinion as to whether the damages the tissues receive from a syphilitic infection make them more prone than before to take on the erratic modes of growth which constitute cancer. In the case of the tongue, the association of the two is so common, that it is difficult to avoid an impression, that syphilis must exercise some degree of predisposing influence; nor are there wanting a certain class of facts which might incline the clinical observer to suspect that the progress of cancer receives some modification, when it occurs in persons who have recently had syphilis.

The cases to which I refer, in making this statement, are chiefly examples of cancer of the tongue, of cancer occurring in cicatrices left by syphilitic ulcers, or even in the ulcers themselves; and lastly, of malignant disease of the various viscera. I have known a patient attacked by symmetrical cancer of the testes, whilst he was still not free from the phenomena of secondary syphilis. In him as in some others of the class to which I allude, the progress was unusually rapid. Without, however, venturing to assert that such cases are not mere coincidences, and fully admitting that they are rare, I must yet emphasise the statement already made, that the diagnosis between cancer and syphilis, when the new growth occurs in a patient who has recently had the latter, often presents extreme difficulty. It will clearly be the duty of the surgeon in almost all cases in which the appearances are suggestive of cancer, and yet there is a clear history of syphilis, to allow the patient what is called "the benefit of the doubt" and let him have specific treatment. The utmost care must be taken, however, lest, in doing this, invaluable

time be lost and the patient's interests sacrificed. The measures adopted should be of a thoroughly efficient kind, and unless their efficacy is promptly proved, the only way of giving the patient "the benefit of the doubt" may be to treat the disease as cancer. In saying this I am assuming that all other methods of diagnosis, including microscopic examination, have been exhausted, and that doubt still remains. As regards the microscope, it is, I fear, but seldom that it will give us much help in cases of real difficulty. The verdict of the histologist is as a rule clear and conclusive in cases which are well pronounced, whilst in those which are not so it is often only negative. This, at any rate, has been my experience in cases of cancer of the tongue; in which, more than once, I have known a much needed operation injuriously deferred because the microscopic appearances were inconclusive. In cases in which it is desired to use treatment as a means of diagnosis, the best plan will usually be to rub in mercury pretty freely, and give iodide of potassium by the mouth at the same time. Under this plan any growth or ulcer of syphilitic origin ought within a week or ten days to change its features in an unmistakable manner. We must not be content with a slight amelioration, for it is common enough for such remedies to make even a cancerous growth less painful for a time, or to cause its surface to clean. The patient will be only too eager to believe himself to be better, and the surgeon, unless aware of the fallacy, may allow himself to be deceived. I repeat, then, that ten days' treatment of the kind alluded to ought to make any disease wholly syphilitic assume such a change of appearance that it is impossible to doubt. If at the end of that time there is still room for doubt, it will in nine cases out of ten be best to operate. In attempting to lay down rules for the differential diagnosis between cancer and syphilis I am most

anxious to insist, as already done, on its extreme difficulty. The surgeon who trusts to rules, or who ventures to rely, with confidence, on his own powers of observation as regards minute differences of appearance between cancerous and syphilitic ulcers, will often make most serious mistakes. Cancerous processes may be simulated by syphilis in the closest possible manner.

As a general rule, it may be said, that we distinguish between a cancerous ulcer and one that is syphilitic, by observing that in the former a process of growth precedes that of ulceration, whereas in syphilis it is at best only one of chronic inflammation. Without doubt this is a most important distinction. In syphilis the edges of an ulcer may be greatly indurated, and its base may be firm, but there are seldom any sprouting masses on the surface, or any well-defined margins to the induration, such as we encounter in cancer. Exceptions, however, occur even to this statement, and now and then even a syphilitic sore may be covered with bossy masses of firm granulation structure which closely resemble epithelioma. I have seen a sore on the penis of this character which I was quite unable to feel confident about, until under the effect of the treatment suggested it immediately began to heal. I might make the same statement concerning several cases of chronic ulceration of the lower lip, attended with thickening and with a certain amount of papillary new growth. I possess more than one drawing in which the ordinary features of rodent ulcer, its clean surface and its sinuous rolled edge of induration, were so exactly imitated by tertiary syphilitic sores, that we had to appeal to treatment for diagnosis.

For the most part it will be in cases of tertiary syphilis that the diagnosis in question becomes important. But difficulties are not wholly absent in the

case of primary chancres, especially when they occur in erratic positions. To mistake a primary chancre for cancer is, however, a far less serious blunder than to mistake cancer for syphilis. It is not likely to lead to anything more than the excision of an unimportant portion of tissue, or to a delay, to be regretted (but still, not a matter of extreme importance), in the adoption of specific measures. As a rule, the existence of concomitant gland disease, in all cases of erratic chancre, will, if the case be mistaken for cancer, seem to negative operative measures, and thus save the surgeon from any more serious blunder than a delay in treatment. I have, however, known more than one case in which indurated primary sores were actually excised under an erroneous diagnosis. Erratic chancres differ very greatly in the conditions which they create; it may, however, I think, be asserted that they never become warty, and that as compared with cancer they almost always present a clean surface and but little secretion. There are cases, however, in which careful attention to these points will not help us.

There are cases of profuse warty growth on the penis attended by ulceration of the prepuce in which the features of epithelioma are very closely simulated. In these we have the conditions which have just been mentioned as usually diagnostic of cancer, of growth accompanied by ulceration. Ricord, in Plates 48 and 49 of his excellent Atlas, has given us illustrations of this condition. The diagnosis is to be helped by careful observation of the warty growths. They will be seen to resemble ordinary warts in all their features and to be remarkable simply for their extraordinary abundance. It will be seen also that the warty growth and the ulcerations are not continuous in structure. The warts grow from the glans penis, whilst the ulceration involves the prepuce, and is

due probably to inflammation caused by acrid discharges.

I have not attached much importance for diagnostic purposes between syphilis and cancer, on the presence or absence of implication of the lymphatic glands. Nothing can be more illusory than to teach that enlargement of the lymphatic glands is one of the features by which cancer can be distinguished from other local diseases. If we wait till the existence of gland disease gives us the diagnosis, we have in nineteen cases out of twenty waited until the case is beyond the reach of treatment. There is no doubt, however, that in any case which comes under observation late and with enlargement of glands already existing, we may take this fact as important evidence in support of the diagnosis of cancer. Neither in secondary or tertiary syphilitic lesions is it at all common for there to be any implication of the lymphatics. What has been said above has chiefly concerned the diagnosis of open ulcers. It is necessary to advert also to the difficulties which are sometimes presented by enlargement of the testis or of bones, or by gummata in muscles or cellular tissue. All of these in turn present occasionally great difficulty. Many a bone has been excised with the diagnosis of sarcoma when the disease was only syphilis. The simulation of new growths by gummata developed in muscles is also often extremely close, and has led to many mistakes. In a well known case which occurred about twenty years ago in one of our London hospitals, the scapula was excised on account of a tumour which the microscope subsequently declared to be only gummatous infiltration into the supraspinatus muscle. The patient recovered and the subsequent development of a node on one clavicle, which yielded to iodide of potassium, confirmed the diagnosis of the histologist. Gummata are also occasionally met with in the masseter and

temporal muscles, or in fact in any muscle of the body, which, from their slow growth and entire freedom from any inflammation, may easily be mistaken for tumours; they usually soften very quickly under specific treatment.

In a general way it is not in the least difficult to diagnose between syphilitic sarcocele and malignant disease of the testicle. In the latter the growth is rapid and steadily progressive, its rate of progress indeed always increasing with its size. There is almost always in some parts of it pseudo-fluctuation, and it is usually more or less nodulated. To the above symptoms we may add that the scrotum soon becomes adherent and shows a dusky tint with enlargement of superficial veins, and lastly that the cord itself is often thickened. In all these features malignant tumours of the testis differ from what we find to be the usual conditions of syphilitic disease. In the latter the enlargement is usually smooth and free from nodulation, firm in all parts, not prone to acquire adhesion to the scrotum, and not tending to increase beyond a certain moderate size. It is far more common to find both testes implicated at once in syphilis than in cancer, whilst the cord almost invariably remains free.

It would be tedious and probably but little profitable to attempt to lay down diagnostic rules in respect to enlargements of other viscera, the liver, spleen, etc. It must suffice to insist that the surgeon must never forget how close the simulation may be, and that in cases of suspected new growth in those who have had syphilis, it is wise to try specifics

CHAPTER XXII.

ON SYPHILITIC AFFECTIONS OF THE MOUTH, TONGUE,
AND LARYNX.

ALTHOUGH I have in various parts of this work mentioned incidentally the affections of the mouth and throat which occur in syphilis, yet it seems desirable to devote a little more space to their special consideration. Amongst the earliest and most common of the secondary symptoms we have sore throat, and the part affected is almost invariably in the first instance the tonsils. The symmetrical kidney-shaped ulcers which are seen in these organs were described by Hunter. Probably very few patients who pass through syphilis wholly escape these ulcers in the tonsils. In many cases, however, they are quite painless, and in not a few they are very transitory. It has occurred to me, not unfrequently, to be assured by a patient that he had no sore throat, and yet to find on inspection that there were very definite conditions present; and yet more frequently I have had the history of sore throat given, and been unable to discover any remaining appearances. It is only, however, in the very first stage of syphilis that this spontaneous disappearance is observed. Very frequently as a parallel to what we have noticed in the skin eruptions, a much more severe form of tonsillitis follows it. In these recurrences, the inflammation spreads from the tonsils to the pillars of the fauces, and up to the base of the uvula. Extensive superficial abrasions are produced, the margins of which are a vivid red, and the surfaces covered by a

yellowish-grey secretion. This secretion rarely becomes distinctly pellicular, and the slightest attempt to scrape it off makes the surface bleed. By these features, the conditions may usually be distinguished from those of certain rare cases of chronic pellicular or diphtheritic pharyngitis which closely resemble syphilis, but are not due to it. In these latter, a thick coherent pellicle may be peeled off without causing bleeding.

The form of acute syphilitic pharyngitis which I have just described is attended with great pain on swallowing. It is often coincident with a severe attack of syphilis, as denoted by a copious rash, which to some extent resists treatment, and is, I think, often seen in patients to whom mercury has been given too vigorously at first. Its treatment is difficult, for mercury often appears to aggravate it, and it must be used with great caution.

Together with the pharyngitis, there are often seen abrasions with inflamed edges and glutinous secretion on their surfaces in the pouches of the cheeks, the lining membrane of the lips, and the commissures of the mouth. In the cheeks they are always especially marked both behind and around the last molar tooth. On the tongue, also, similar patches more or less symmetrically arranged, are often seen. In some patients the mucous membrane of the mouth suffers very severely while the skin is almost exempt. But in many, the severity of the disease is marked by extensive lesions in both structures. It is, perhaps, a good rule of practice, that when sores of unusual extent are seen in the mouth, after mercurial treatment has been tried for some time, iodide of potassium should be given in its stead. The prescriber must, however, be prepared to revert to the stronger specific after a while. The local application of solutions of chromic acid or nitrate of silver are

often of great service. A certain slight amount of enlargement of the lymphatics in the back of the neck is to be expected as a consequence of inflamed throat. But though it may persist for long, it never advances to any high degree. The absence of any severe gland affection in connection with lesions of the secondary type is one of the features in which they contrast most definitely with those of the primary class.

It is not necessary to say much as to primary chancres in the mouth. They may occur on the lips, on the tongue, in the cheeks, or on the tonsils. They are always to be distinguished from sores of the secondary class, by the circumstance that they are single, and that they are attended by large swelling of the lymphatic glands of the same side. They also usually, but not always, present peculiar features as regards induration and thickening. In Plate IV. a delineation is given of a primary sore on the tongue, the circular form of which, and the elevated edges, are very characteristic.

During the secondary stage it is not at all uncommon to witness the growth of papillomata on the surface of the tongue, and I have already more than once mentioned them as good instances that syphilis can cause growth of normal structures, as well as ordinary inflammation. They are almost always restricted to the dorsum and posterior part of the organ. The reason of this probably is, that this is the region most exempt from pressure when the tongue is at rest in the mouth.

It is but seldom that the larynx suffers during the secondary stage of syphilis, but should it do so its lesions will be of the same type as those in the mouth, and will yield to the same treatment.

After the attack of more or less severe pharyngitis and stomatitis which occurs in the secondary period

has once passed away, it never returns in the same form. Nothing, however, is more common than for slight relapses to be witnessed, and in these the tongue is especially apt to be the part affected. A very marked difference is now observed in the liability of the two sexes, men being much more prone than women to suffer from persisting or repeatedly relapsing sores of the tongue and throat. This difference is no doubt due to the habit of smoking, the hot tobacco fumes exercising a very definite influence in localising and exciting the morbid processes. In many cases it is impossible to cure the mouth while the patient continues to smoke. Other local influences also take their share, such as broken teeth, ill-fitting tooth plates, and amalgam stopping. Patients suffering from recurrent stomatitis should be warned not to drink any beverages containing carbonic acid, and should also avoid cheese, sugar, fruits, and all articles of diet which make the mouth smart.

The diseases of the tongue which are met with after the secondary period show considerable variety in their forms; in a few exceptional cases the tongue never gets well, but remains swollen and lumpy, with deep fissures, bald patches, and abrasions. These conditions are, I think, not unfrequently caused by a premature and too severe salivation. But at the same time it is to be admitted that they are often to be cured only by the steady use of mercury. A tongue in the state of chronic hypertrophic inflammation is shown in Plate V. A much more common affection of the tongue from syphilis is witnessed at intervals of from two to six or ten years after the occurrence of the disease, and is of the nature of superficial sclerosis. From it women and non-smokers are almost wholly exempt. It consists in the formation in the first instance of ill-defined patches on each side of the dorsum of the organ, which become smooth and of a

silvery white. If the habit of smoking be continued the patches gradually indurate and thicken more, until they present dense white leathery plates, the so-called ichthyosis of the tongue. The state first described is at no stage to be considered as wholly syphilitic, and all its conditions may be produced in great perfection in those who have never suffered from the disease. It is in reality the smoker's tongue. But I do not think there can be any doubt that those who have suffered from a specific glossitis are far more prone to it than others. When the condition has advanced to sclerosis it is too late to expect any benefit from the internal use of specifics. Whilst a diffuse lumpy condition of the tongue is a very common consequence of syphilis, swellings that can be classed as true gummata are rare. Occasionally, however, we see a well-defined swelling form in the muscular substance of the organ which is of this kind. Occasionally by their hardness, gummata may simulate malignant growths; they always, however, answer very quickly to the iodide of potassium, and the diagnosis is thus easily established. Syphilitic lesions of the tongue are at all stages, but especially that of sclerosis, very liable to take on cancerous action. It is scarcely possible to repeat this assertion too emphatically, but as I have treated it in detail in another chapter, I need not repeat here what has been there said.

In the tertiary stage of syphilis, and indeed at any period after the secondary, acute phagedænic inflammations may occur in connection with the mouth. They are most common on the soft palate, and not unfrequently destroy it. But they may involve also the pharynx, tongue, and larynx. They are seen both in the inherited and acquired form of syphilis, but are more common in the latter. The rapid destruction of parts, the swelling and the acute inflammation present, usually denote sufficiently clearly the nature of the

disease. The most vigorous treatment is necessary; iodide of potassium should be pushed, and the edges of the ulcer cauterised with the acid nitrate of mercury. As a rule, when sound healing has once occurred no relapse need be feared. Destruction of the epiglottis, sclerosis of the larynx, and now and then almost entire occlusion of the pharynx, with posterior adhesions of the velum, are amongst the lamentable consequences of these attacks. They not unfrequently necessitate the performance of tracheotomy and the permanent use of the cannula.

It remains to state that herpetic affections of the throat and mouth are not by any means uncommon in connection with syphilis. They are sometimes very troublesome on account of their tendency to recur after very short intervals, and they always annoy the patient by making him think that he is not cured. They may be diagnosed from other forms of syphilitic sores, by the observation that they are never symmetrical, and are usually restricted to one side of the palate or pharynx. Although a tendency to spontaneous cure is always present, yet herpetic sores on the palate after syphilis are prone to last much longer than herpes usually does on other parts. It is doubtful whether the use of specifics does much to prevent the liability to herpes of this kind. At any rate, arsenic ought always to be given in combination with them.

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